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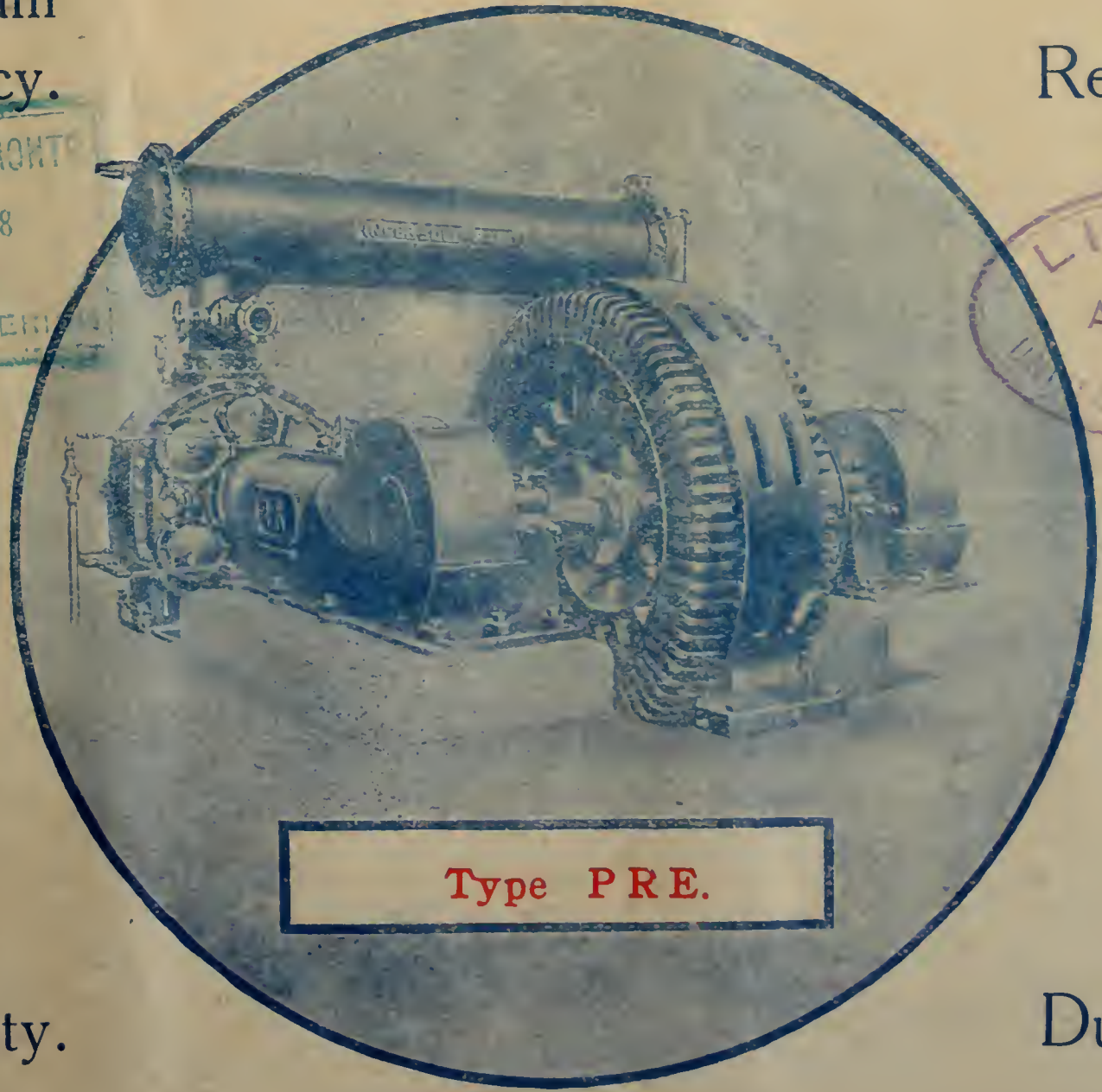
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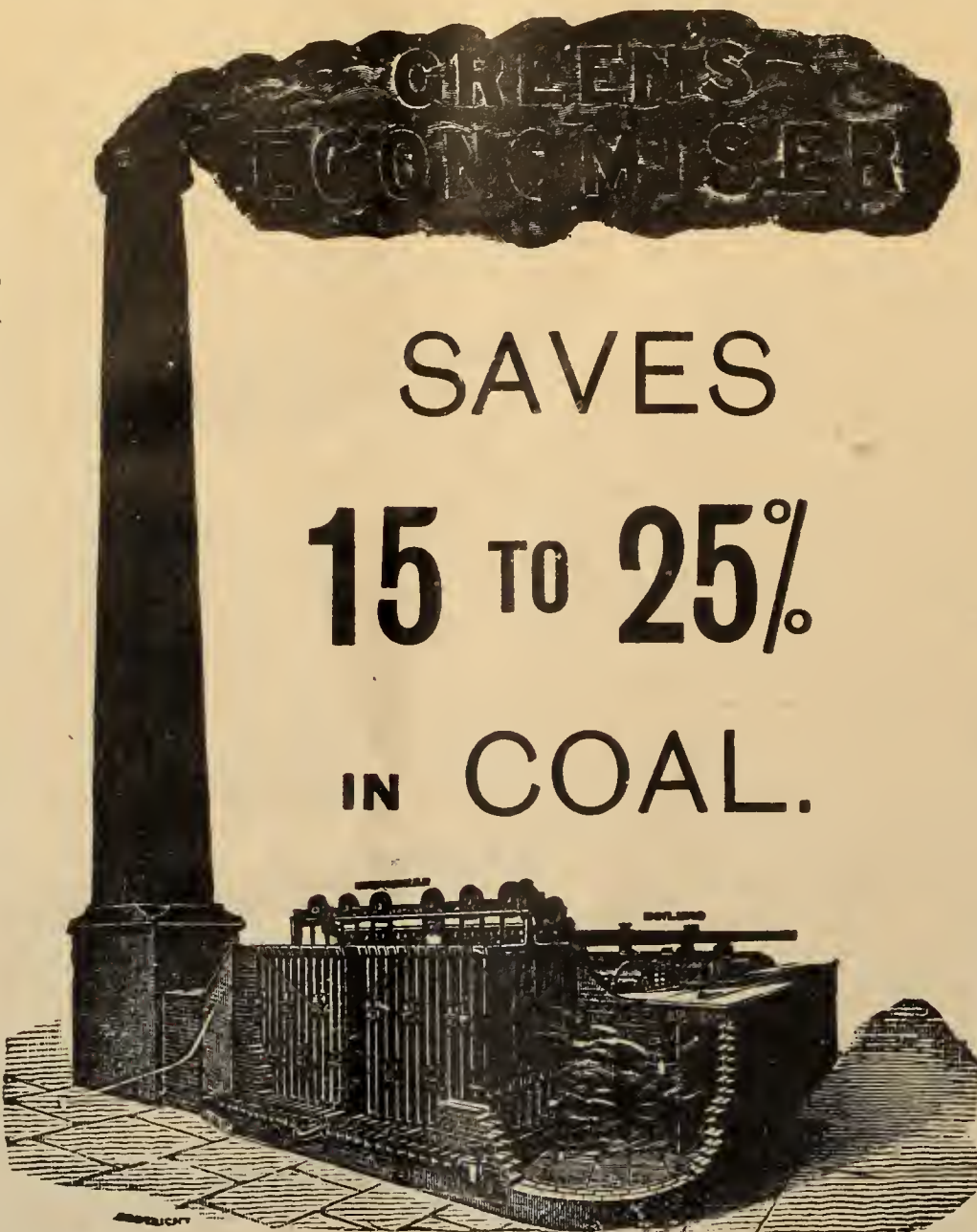
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Notes and News.

With this issue the name of this paper becomes "The South African Mining Journal and Engineering Record," and, as the name implies, its scope is extended to embrace engineering in all branches allied to mining. The alteration in title has been made in deference to the wishes of a large circle of friends and supporters, and our readers need have no fear that there will be any change in the policy or diminution in the completeness with which the financial and company side of mining has hitherto been covered in our pages. The addition to the title of the paper will, we trust, be reflected in an appreciable extension of its scope and usefulness.

At the monthly meeting of the S.A. Institute of Electrical Engineers, the new President, Mr. J. H. Dobson, delivered his inaugural address. The address covered a wide field, including research, coal conservation, liquid fuel and related subjects. A full report will appear in our next issue.

The directors of the Village Main Reef G.M. Co. announce that, on the recommendation of the consulting engineer, an arrangement has been made to purchase from the Village Deep, Ltd., for the sum of £7,500, a small area of claim ground, approximately 45 of a claim in extent. This area immediately adjoins the Village Main Reef Company's southern boundary, and is separated from the Village Deep Company's northern workings by a dyke. The ground can only be worked at considerable inconvenience and expense by the Village Deep, whilst to the Village Main Reef the acquisition of the area is attractive as it can be attacked immediately.

The Department of Industries is advised that owing to the scarcity of pig-iron and scrap metal, and in order to avoid the necessity of closing down its works, one of the principal iron-working firms in Durban has decided to proceed with the erection of the necessary furnace for iron smelting from local ores. Plans for this undertaking are well advanced. This, says the *Journal of Industries*, is the third enterprise of the kind to be inaugurated in the Union within the last six months.

The attention of the Department of Industries has been called to the increasing difficulty in obtaining supplies of ammonia for refrigerating purposes. While the consumption of this article is not at present large, there is every possibility, if animal and dairy industries continue to expand, that the demand will be much increased. In this connection it is interesting to learn from the *Journal of Industries* that a Johannesburg company has succeeded in producing Liq. Ammonia Fort. (specific gravity 0.88) and states that it will be in a position to supply the total wants of the Transvaal, whilst arrangements could be made to supply the other Provinces also. It may be added that all the raw materials employed are South African products.

The Trades Commissioner, writing under date 20th November last, states that the Imperial Government is not buying antimony ores at present, and the quotation of 9s. 6d. per unit referred to in the cabled price list was merely the official price now ruling. The basis is 60 per cent. There is an allowance of 3d. per unit below 60 per cent. down to 55 per cent., and 6d. below 55 per cent. down to 50 per cent. Ores assaying below 50 per cent. are not acceptable. The ores must be commercially free from impurities, lead, arsenic, and copper.

The excessive rainfall on February 14 and 15, following on the recent abnormal rains, has been the cause through percolation of the flooding of the bottom of the main shaft at the New Heriot, water rising to above the 8th level station and submerging the pumps at that level. Hoisting of ore has ceased since the night of February 14. On Monday the water making in the mine was still far above normal, but it is hoped that, with the steps taken to deal with it, the water will be lowered sufficiently to enable mining operations being restarted early next week.

* * * *

The estimated profit of the Glynn's Lydenburg for January was £1,445, not £2,256 as previously announced. An error occurred in the telegraphic transmission of the figures from the mine office.

* * * *

For years past this journal has strongly urged the importance of the higher scientific education of mine officials, and we have emphasized the wisdom of securing official certificates. On more than one occasion we have had the pleasure of complimenting Professor Yates on his notable work in this connection, and we again tender our congratulations to him and his students on their remarkable achievement in the managers' examination last month.

* * * *

We are informed that Mr. W. L. Honnold has been appointed a director of Springs Mines, Ltd., as representing the interests of the Anglo-American Corporation of South Africa, Ltd. Since Mr. Honnold left South Africa in 1915 he has been associated with the Commission for Relief in Belgium, first in London, and subsequently as chairman of the Commission in New York.

* * * *

The report of the directors of the East Rietfontein Syndicate for the year ended 31st December, 1917, to be submitted at the fourteenth ordinary general meeting of shareholders, to be held on Friday, the 22nd February, shows that the area of the property at the date of the last report comprised 1,758 morgen 352 square roods on the farm "Witkopje" No. 7, in the mining district of Boksburg. During the year the directors accepted an offer from the African Land and Investment Company, Ltd., of £4 per morgen for the surface rights of 68 morgen 500 square roods, the syndicate retaining all the mineral rights. The area of the property now therefore comprises 1,689 morgen 452 square roods, practically the whole available extent of which is under lease for agricultural and other purposes. A profit of £736 12s. 10d. was made during the year under review, which is an increase of £198 17s. 2d. as compared with last year, mainly due to the increased rental received for the Rietfontein dam in terms of the agreement with the Simmer and Jack Proprietary Mines, Ltd., dated 13th October, 1913, which provides in addition to an annual rental of £200 a minimum amount of £200 per annum to be paid by that company during the two years ending 13th October, 1918, and a minimum of £300 per annum for the remaining period of the lease, which expires on the 13th September, 1923.

* * * *

The report for the year to June 30, 1917, states that the net result of the year's operations is a profit of £4,430 and £5,070 was brought in, making £9,500. The directors have declared a dividend of 9d. per share, amounting to £5,878, leaving £3,622, which the directors propose to carry forward. The cash and loans at June 30, 1917, as shown in the balance sheet, amounted to £28,786,

and are earning a satisfactory rate of interest. During the past year the development of the lower seam of the new coal area has been carried on at a substantial rate, and the coal exposed has, for the most part, been of satisfactory thickness and quality. No work has been done towards opening up the top seam, as the development requirements of the lower seam have fully utilised available equipment. The actual cost of the new coal shaft and connections was £13,243. The total footage driven during the year was 4,150 feet. The coal sales amounted to 150,636 tons, as against 127,106 tons for the previous year, realising, with sundry items of revenue incidental to this section, £40,445, or 5s. 4.43d. per ton. The working costs were £35,347, or 4s. 8.31d. per ton, and the working profit amounted to £5,097, or 8.12d. per ton, as against 8.63d. for the previous twelve months. It may be mentioned that the larger portion of this profit was earned during the latter half of the year, after the new shaft had been brought into operation. The gold mining area consists of approximately 1,240 claims, on which the main shaft has been sunk to a depth of 724 ft. No operations have taken place during the year, except the hauling of coal and water, and the former has been discontinued since the new coal shaft was brought into commission. The original main shaft is available for the purposes of this section as may be required, in addition to its present use for water supply.

* * * *

The latest report of the Bwana M'Kubwa Company gives little information regarding the progress made with the further development and equipment of the property. The area over which rights are held has been increased to 43,800 acres by the pegging out of 6,000 acres adjoining the Bwana M'Kubwa property. Producing operations during the year ended June 30 were continued with the small experimental concentrating plant, dealing only with high-grade ore averaging about 10 per cent. copper. The tonnage treated was 18,548, from which 1,758 tons of concentrates were produced. The copper contents of these concentrates is not given, but last year it was mentioned that 551 tons produced from June 30, 1916, to October 31 contained about 224 tons of copper, or approximately 44 per cent. In the year to June 30, 1916, the mill operated less than three months and produced 177 tons of concentrates, of which 88 tons were shipped to this country and realised £3,576, or £20 4s. per ton. The remaining 89 tons, added to the output of the past year, made the disposable quantity 1,847 tons, of which 1,380 tons were shipped here and realised £71,000, or £51 9s. per ton. Notwithstanding the much higher value thus obtained, however, the operations, contrary to the official anticipations put forward at the meeting on December 19 of last year, did not result in a substantial profit, but in a loss of £4,261; though apparently, if the whole of the concentrates had been disposed of a net profit of £3,700 would have been shown by the accounts. This is to be inferred from the directors' report, which attaches an estimated value of £8,000 to the unsold produce. This, it should be emphasised, is the result obtained under present abnormal conditions of treating high-grade ore averaging 10 per cent. copper by means of a comparatively small and inefficient plant. The manager estimated last year that the quantity of such ore in sight at July 31, 1916, was 13,000 tons developed, and a further 10,000 tons partially developed. Hence, unless further discoveries have been made, it would seem that the high-grade ore in the mine is nearing exhaustion.

* * * *

Mr. James W. Gerard, recently American Ambassador at Berlin, states: "Another commodity upon which a great industry in the United States and Mexico depends is cyanide. The discovery of the cyanide process of treating gold and silver ores permitted the exploitation of many mines which could not be worked under the older methods. At the beginning of the war there was a small manufactory of cyanide owned by Germans at Perth Amboy and Niagara

Falls, but most of the cyanide used was imported from Germany. The American-German company and the companies manufacturing in Germany and in England all operated under the same patents, the English and German companies having working agreements as to the distribution of business throughout the world. The German Vice-Chancellor and head of the Department of the Interior, Delbruck, put an export prohibition on cyanide early in the war and most pig-headedly and obstinately claimed that cyanide was manufactured nowhere but in Germany. Therefore, he said, if he allowed cyanide to leave Germany for the United States or Mexico, the English would capture it and would use it to work South African mines, thus adding to the stock of gold and power in war of the British Empire. It was a long time before the German manufacturers and I could convince this gentleman that cyanide sufficient to supply all the British mines was manufactured near Glasgow, Scotland. He then reluctantly gave a permit for the export of 1,000 tons of cyanide, and its arrival in the United States permitted many mines there and in Mexico to continue operations and saved many persons from being thrown out of employment. When Delbruck finally gave a permit for the export of 4,000 tons more of cyanide the psychological moment had passed, and we could not obtain through our State Department a pass from the British."

* * * *

An official report has been issued of important experiments carried out on the Crown Mines, De Beers Mines, and the Premier Diamond

Pneumonia Among Mine Boys: Important Report. Mines to test the efficacy of a special vaccine prepared at the S.A.

Institute of Medical Research for the prevention of pneumonia among native labourers of the mines. The vaccine was made as the result of the discoveries of Dr. F. S. Lister, the research bacteriologist of the Institute. Beginning his investigations at the Institute some years ago, he found that there were a number of distinct strains of pneumonia instead of one, as supposed; and he has, in fact, classified ten. With a vaccine containing the organisms of three of these strains—namely, the three strains responsible for from 63 to 70 per cent. of the cases of pneumonia on the Rand, the natives of the Crown Mines and the Premier Mines were inoculated. Only new arrivals on the properties were so treated. The experiment on the Crown Mines occupied nine months, and during that time there were 82 cases of pneumonia, with 12 deaths among the inoculated, but not a single case of the three common strains against which the boys had been inoculated. Simultaneously the general incidence and death rates for pneumonia on the mine dropped to 13.89 and 2.95 respectively, although this mine was in previous years one of the worst on the Reef. Of the deaths among the inoculated boys Dr. Lister was able to classify them among the different strains of pneumonia. Had it not been for inoculation, he thinks there would have been 120 cases of the three common strains among the inoculated boys. "The results of this experiment," he says, "alone constitute, to my mind, proof of the efficacy of this particular method of prophylactic inoculation against lobar pneumonia." On the Premier Mines, with a similar vaccine, pneumonia was virtually eradicated among the inoculated boys, while the death rate generally during the twelve months was brought down to 86 per thousand per annum. On the De Beers Mines, a vaccine with the representatives of four strains was used. Here the experiment lasted six months, and also led to remarkable results, which are described as "very encouraging." By the use of a vaccine containing the organisms of the other chief strains of pneumonia in addition to the three common strains, Dr. Lister believes that lobar pneumonia will become almost a negligible factor in the general mortality from disease.

TOPICS OF THE WEEK.

THE MINES AND THE BUDGET.

The following is a brief summary in figures of the Budget presented by the new Minister of Finance, Mr. Orr, in the Assembly last week. For the year 1916-17: Revenue, £18,408,615; expenditure, £17,845,376; surplus applied to redemption of debt, £563,238. 1917-18: Revenue (revised estimate), £19,409,000; expenditure (revised estimate), £18,945,000; surplus to be applied to redemption of debt, £464,000. 1918-19: Revenue (estimate), £19,256,000; expenditure (estimate), £19,659,000; estimated deficit, £403,000. Mr. Orr hopes that this deficit will be met by economies in expenditure, and possibly by receipts in excess of estimates. Among the most interesting of the facts brought out by the Minister in the course of his speech was that the value of our industries may be placed at £40,000,000, that there were over 4,000 establishments, and that the wages paid amounted to £8,750,000, the number of persons employed being 100,000. These figures were based on the returns for 1915 and had doubtless since been largely increased. Mr. Orr mentioned that the scientific aspect of the development of the raw materials was being investigated under the advice and assistance of the Scientific and Technical Committee appointed during 1917, and a survey of some magnitude was in progress which would result in the revelation of a mass of information which hitherto had not been in available form regarding the development of our mineral, agricultural, chemical and other industries, and which should prove of the greatest use to industrialists, investors and the public of South Africa generally. Turning to mining production, he said that the importance of the mining industries required no word of his to emphasise its position in the industrial world of the Union. The steady maintenance of the gold output had been of incalculable value in this time of stress, but the increased cost of working had brought some of the mines to the point of possible closing down, and a Select Committee had, as people were aware, been appointed to inquire how best to meet the existing conditions and, if possible, suggest a remedy. The mineral production for the year 1917 was valued at £52,004,000, an increase of £1,410,000 over 1916. There had been, it was true, a decrease in the gold production of the value of £1,200,000 and a decrease in dividends paid of £542,000. The coloured labour employed was 193,000, as compared with 214,000 in 1916. Diamonds showed an increase of over £2,000,000 in value, and coal of over £500,000, the coal output being increased by 400,000 tons. On the whole South Africa, said Mr. Orr, had been doing extremely well. Its shrinkage in imports has been compensated by increased energy in local production, and, thanks to the British Navy, we had found good markets for our products. His figures relating to income tax were very interesting. They show that in the current year about £1,010,000 was collected in the form of arrears taxes, due in the preceding year. In the coming year a revenue of four millions sterling is anticipated from income and super tax. Of this the gold mines will pay about £1,050,000; the diamond mines, £450,000; and the general public the balance. Under the head of Mines and Industries, an increase is budgetted for of £19,275, due to reorganisation of the White Labour Branch and transfer to this department from the Railway and Harbour Administration of the staff hitherto employed by the Administration in this connection and extension of the activities of this department on the industrial and scientific side. Mr. Orr's peroration was brief but effective. This war, he said, had caused an immense influx of capital into South Africa. He appealed for economy all round. The war would come to an end and we should have greater security in South Africa, where the German menace had hung as a shadow over the land. The need for greater personal economy than had hitherto been exercised was imperative. The need for increased production was equally emphatic. Where prices had become so inflated as they were to-day there was only one rule for the prudent, and that was to produce more and spend less. Which excellent sentiments, we trust, will be taken to heart by everybody, including the Government itself.

THE YEAR WITH THE PREMIER (TRANSVAAL) DIAMOND MINING CO., LTD.

Profit of £800,919—Improved Prices and Diminished Output—Points from Annual Report.

At the annual general meeting of the Premier Diamond Mining Company, Ltd., yesterday a working profit of £650,944 8s. 6d. in respect of the year's production was shown, which is increased to £800,919 3s. 10d. by the realization of the stock of diamonds carried forward from the previous financial year. The unsold stock carried forward to the coming year is valued at £10,355 7s. 6d. After deducting the cost of equipment, a balance of £757,045 14s. 10d. is available for distribution between the Government and the company, a sum which compares favourably with the profits made by the company in normal times. The directors have continued to restrict the output and limit washing operations during the year to the capacity of the No. 3 gear. It has not been possible, owing to shortage of native labour and difficulties in obtaining supplies and importing spare parts of machinery, to bring the No. 4 gear into commission. As there is no prospect of any improvement in the conditions during the war, the board does not anticipate any increase in the quantity of diamonds produced, but looks rather to the maintenance and increase of the price of diamonds to keep the profits up to the pre-war standard. Under the arrangement made for the disposal of the company's diamonds, the directors have been able to sell the whole of the company's production for the year, together with the stock of diamonds brought forward from the last accounts. The prices show an improvement on those obtained for the previous year and in a large measure compensate for the diminished output. The company has paid all the accumulated preference dividends and has been able to meet the current ones as they became due. After making provision for these, the directors were able to pay a dividend of 6s. 3d. per share to deferred shareholders at the 31st October, 1917, which is the first they have received for upwards of three years.

The report by Mr. D. McHardy, the General Manager, for the financial year ended 31st October, 1917, has the following:—The total number of loads of sixteen cubic feet hauled is 5,080,232, accounted for as follows: Blue ground from 210ft. level, washed, 510,520; blue ground from 260ft. level, washed, 709,223; blue ground from 310ft. level, washed, 1,700,275; blue ground from 360ft. level, washed, 1,987,786; tailings, washed, 20,825; stone and reef discarded, 151,603; total, 5,080,232. The total production of diamonds was 906,341 carats; average yield per load, 184 carat; average cost per load mined and washed 2s. 1.056d., average cost per carat 11s. 4.252d., average cost per load on total loads hauled 2s. 0.308d. (calculated on mine expenditure, viz., £514,545 12s. 4d.). The scale upon which operations have been carried out is in accordance with the standard fixed by your Board, and the quantity of ground treated is equal to the capacity of the plant at present in commission.

Working Costs.—In view of the gradually increasing prices of all mining supplies, the figure of 2s. 1.056d., representing the average cost per load washed, must be regarded as satisfactory. In addition to the expenditure incidental to mining, the working costs include the war allowances to the dependents of men on active service, besides which a considerable sum has been expended in connection with the renovation of house property for the accommodation of employees at the mine due to the depreciation of a large number of houses, through being untenanted during the suspension of mining operations, following the outbreak of the war. **Washing Plant.**—The No. 3 Crushing and Washing Gear has been maintained in an efficient state of repair, and the ground treated during the period under review has been dealt with entirely by this plant. Owing to the trouble experienced in connection with the disposal of tailings, due to the embankments subsiding, rendering it impracticable to maintain a satisfactory haulage service, it was decided to form a new depositing site to the north of No. 3 Gear, where better facilities are available for dealing with the large quantity of tailings it is necessary to handle daily. This involved the construction of a main mechanical haulage, as well as three distributing haulages, and though the initial outlay on this account was somewhat heavy, adding appreciably to the working costs, the results since obtained, particularly in regard to the improvement

effected in the running time of the washing plant, have more than justified the expense. Progress in regard to the alterations to the No. 4 Washing Plant, to which reference was made in the last annual report, has been retarded, owing chiefly to the difficulty in obtaining the necessary material, and this work is consequently not so far advanced as it might otherwise have been at this date. **Development.**—The shortage of native labour at intervals during the year necessitated a curtailment of development work, in order that the available labour force might be employed in maintaining the output. A commencement has, however, been made in connection with the opening up of the 410ft. level, and, having regard to the restricted scale of operations, the development of the mine is sufficiently well advanced to meet requirements for some considerable time. The average depth of the open workings is 249 feet, an increase of 14 feet as compared with the depth at the end of the preceding financial year, and the quantity of ground available above the 360ft. level represents approximately 27,000,000 loads. **Floating Reef.**—Whenever the labour position permitted, work pertaining to the removal of the floating reef was continued, and during the past year 151,603 loads of waste rock were hauled from the mine and discarded. A sufficient quantity of floating reef has now been removed from the southern portion of the "bar" to enable further development work in the central section of the mine to be proceeded with, unhampered. **Water Supply.**—The inflow to the reservoir at the Wilge River was 4,426,000,000 gallons, whilst the quantity of water pumped to the mine amounted to 467,250,000 gallons. The pumping plant has worked most satisfactorily throughout the year, and has been maintained in a thorough state of repair. The rainfall for the twelve months ended 31st October last was 35.04 inches. **Disposal of Scrap Material.**—Satisfactory arrangements have been made for the disposal to Messrs. The Union Steel Corporation, Ltd., and the Dunswart Iron and Steel Works, of such material as is of no further use to the Company, and the revenue from this source during the past year amounted to £1,300. A number of obsolete steam engines, boilers, pumps, etc., were also disposed of and realised £2,300. **Native Labour.**—During the latter portion of the year the supply of natives was inadequate for requirements, and, notwithstanding the efforts made to improve the labour position, at the close of the financial year the force available was below the complement necessary for the work of the mine. The vigorous recruiting campaign carried out in the Northern Transvaal and Basutoland—which have hitherto been our main sources of supply—to obtain labour for service in Europe and East Africa, together with other adverse conditions which have prevailed during the year, are causes which have probably contributed towards the scarcity of labour for mining purposes. The number of natives admitted to the compound was 10,768, obtained at a total cost of £8,488, equivalent to 15s. 9d. per head. The daily average number of natives employed was 5,751. Wages amounted to £260,821 18s. 5d., being a daily average of 3s. 0.87d. per native per day, including piecework and overtime, natives providing their own food. It is gratifying to be able to record a marked improvement in the health of the natives, the death rate from disease of 4.17 per 1,000 per annum, as compared with 13.55 for the previous year, being the lowest recorded since the commencement of mining operations by the company. This is entirely due to the remarkable decrease in the incidence of pneumonia as the result of the systematic inoculation, on admission, of all natives with a prophylactic vaccine prepared by, and administered in accordance with the method recommended by Dr. F. Spencer Lister, of the South African Institute for Medical Research. In view of the virulent type of pneumonia which has hitherto been very prevalent amongst the native employees, the success achieved is, in the opinion of the company's medical officer, conclusive proof of the benefits to be derived by the adoption of this course in regard to the prevention of that disease. **White Labour.**—The daily average number of white men employed, including apprentices, was 440, and the amount paid in wages under this head was £133,751 11s. 5d. Employees appreciate the concession granted to them by your Board for the duration of the war, whereby they are permitted to occupy the company's houses rent free, whilst water, lighting and sanitary services are also provided without charge. Several of the employees are still on active service, and it is with deep regret that I have to record the deaths, during the last year, of Messrs. A. Richards and J. J. Van Niekerk, who were killed in action whilst serving in Flanders. **Buildings and Plant.**—The outlay under the heading of capital expenditure was £19,392 13s. 9d., of which £17,483 18s. 4d. represents the cost of the new hauling plant ordered prior to the outbreak of the war, the balance being expended chiefly in connection with the erection of this machinery, also in providing an additional electrical transformer station on the surface of the mine, and in acquiring certain dwelling-houses erected by employees.

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MINING QUESTIONS IN THE UNION PARLIAMENT.

State Mines Lease—Diamond Cutting—Mineral Development.

In the House of Assembly last week Mr. Alexander asked the Minister of Mines and Industries: (1) Whether the Government has made arrangements with the Kimberley Diamond Syndicate for the importation of South-West African diamonds for local cutting. (2) Whether any applications have been received for permits to obtain such diamonds with a view to starting a diamond cutting industry in South Africa. (3) Whether such applications were granted, or, if not, why not; and (4) whether the Government is prepared to take into serious consideration the advisability of giving every encouragement to those who are striving to start such industry. The Minister replied: (1) Arrangements have been made by which an amount not exceeding 5 per cent. of the monthly production of the South-West African diamonds will be available at market rates for the cutting industry. (2) and (3) Three applications have been received. Two of these have been approved; in the other case the application was not considered satisfactory. (4) These arrangements were entered into in order to stimulate to some extent the establishment of a local cutting industry.

DIAMOND CUTTING IN SOUTH AFRICA.

Mr. Creswell wanted to know of the Minister of Mines and Industries: (1) Is the Minister aware that Mr. T. J. Benjamin, who claims to have a long personal and technical knowledge of diamond cutting, and who started a small factory in Johannesburg, applied to the Industries Advisory Board on November 24, 1916, for an opportunity to lay before it his views on the subject of diamond cutting in South Africa? (2) Is he aware that this application was repeated at a later date, and that no such opportunity has yet been accorded him? and (3) does the Government consider that the establishment of a diamond cutting industry in this country is desirable, and, if so, will the Minister explain why this gentleman's application met with no response? The Minister replied: (1) The answer is in the affirmative. (2) Yes, various letters were received from Mr. Benjamin, in which it was considered his views on the subject were sufficiently set out. Mr. Benjamin was also informed that the Government would be prepared to allot him a portion of the percentage of the South-West Africa Protectorate diamonds which the Government may call upon the London Diamond Syndicate to sell for diamond cutting purposes under their agreement with the Union Government. (3) The answer is in the affirmative. The information given under (2) answers the second part of this question.

NON-FERROUS METAL INDUSTRIES.

Mr. Rheeder asked the Minister of Mines and Industries: (1) Whether the Union Government was at any time consulted with regard to or informed of the provisions of the Non-Ferrous Metal Industry Act recently passed by the British Parliament, the object being to secure for the British Empire the control of the markets of the world as far as unwrought zinc, lead, copper, tin, aluminium and other base metals are concerned; and (2) whether the provisions of the said Act will have any influence on the mineral mines within the Union or limit the development of the same in any way; and if so, in what manner and to what extent? The reply was as follows: (1) A copy of the Non-Ferrous Metal Industry Act, the object of which Bill appears to be to ensure that the control of the industries mentioned within the British Isles should remain in the hands of British subjects, was forwarded to the Union Government for its information. (2) The reply is in the negative.

MINERAL DEVELOPMENT.

That, with a view to furthering industrial and mineral development and of increasing the export of the products of the Union, the Government be requested to consider the advisability of taking the necessary steps to enable it immediately after the war to make a commencement with the building of railways in those parts of the Union not

already so served. Mr. Schunck (Lydenburg), in submitting the foregoing motion in the House of Assembly yesterday, said that the matter was of such importance that enough could never be said about it. The results of the war would be such that there would be a tremendous development in South Africa. There would be an immense demand for foodstuffs of all kinds and descriptions, and in view of that fact and the great demand which would be made in South Africa, it behoved the Government to see to it that the country was prepared. Undoubtedly the railway net had been enormously extended during the past 50 years, yet it should be further extended. The development of the various mines in his district had also been much retarded by the absence of railway lines. He especially dealt with the great value of the asbestos deposits, which he claimed were not simply of local but of national importance. As a marketable commodity it was one of the most valuable deposits of the country. There were also very valuable chromite deposits which, however, could not be developed through want of railways. The development of South African forests and the consequent assistance to the timber trade also depended on the railway communication being extended to every part of the Union. The Government should give this point its careful attention, as the time was coming when they would be unable to secure building material from other parts of the world. The debate on the motion was adjourned.

THE STATE MINES LEASE.

"That this House approves of the supplementary lease entered into between the Government and the Government Gold Mining Areas (Modderfontein) Consolidated, Ltd., Ltd.

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on the Table of this House on the 18th January, 1918." The above motion was proposed in the House of Assembly by Mr. F. S. Malan (Minister of Mines and Industries), who explained that in 1910 the above company was the successful tenderer for the Government gold mining area, it accepting a scale which gave Government a certain percentage of the profit. At the time the contract was entered into the effect of two items in the scale was not appreciated, and it was not until four years afterwards when the mine came to a working stage that the full effect became apparent. The scale was an experiment, and since then, owing to that experience, the pitfalls into which the contractors fell had been avoided. The total profit under the proposed new scale was likely to fall between £33,810,000 and £27,510,000, of which the Government would receive £17,870,000, and £12,670,000 spread over the period of from 20 to 30 years. The mine was likely to produce upwards of £70,000,000 worth of gold. The offer of the new scale by the company was recommended for acceptance by the Government Mining Engineer. Mr. Malan went on to explain that the profit arose from two factors, the richness of the ore and the efficiency of working. When the present scale rose beyond $33\frac{1}{3}$ per cent. it was not to the interest of the company to reduce working costs, for when the ratio of profit exceeded $33\frac{1}{3}$ per cent. the advantage which the company obtained in increased profits due to efficient working disappeared, as the Government took a larger share of the profit than if the profits arose from increased grade of ore. The result was that instead of there being an inducement to the company to increase the profit above $33\frac{1}{3}$ per cent., the company would be inclined to keep the profit below $33\frac{1}{3}$ per cent., because the moment the profit went over that figure the company lost instead of gained.

A NEW SLIDING SCALE.

The principal conclusions drawn by the Government Mining Engineer were as follows: (a) The present sliding scale operates in such a manner that the company is the loser if it allows the profit to rise above $33\frac{1}{3}$ per cent. of the revenue, except in so far as a portion of the scale lying between 38.8 per cent. and 42.553 per cent. gives it an almost negligible further advantage. (b) The probable recovery indicated by the development and by the results on surrounding mines is such that the ratio of profit to recovery may be expected to fall anywhere between 32 to 51 per cent. with reasonable efficient operations, the average expectation being thus well over $33\frac{1}{3}$ per cent. (c) Since the exercise of such efficiency is against the company's interests, it is to be expected that it will do all it can to keep the working costs as high as possible. (d) The Government is a double loser by such a policy, both because the profit to be divided is smaller, and because the lower the ratio of profit to revenue is, the lower is its percentage of that profit. (e) The company is also a loser under the existing scale as compared to a more scientific one, but to a smaller extent, since its percentage of the profit increases with a fall in the ratio. (f) It is, therefore, to the interest of both

the Government and the company to revise the existing scale, substituting for it one which encourages the company to exercise efficiency, to increase the total profit and to raise the ratio of profit to revenue. (g) The company offers a new sliding scale under which the above anomalies disappear, and under which the inducement offered to the company to exercise efficiency varies, within the probable limits of profit indicated in paragraph (b), between 26.3 and $17\frac{1}{2}$ per cent. of the extra profit due to efficiency, the latter figure being that adopted for the upper portion of the scale when the profit exceeds 36.17 per cent., this being the point at which the new scale crosses the old scale. Below this point the new scale gives the Government more than the old scale, but above less. This lesser amount is, however, mainly only academic, since this portion of the old scale would never come into operation. The new scale otherwise does not depart to a very great extent from the old one. (h) Under the new scale, it may be expected that the profit, both to the company and the Government, will be largely increased, but the Government's share of the increase is, on the whole, larger than the company's. (i) The offer of the company is recommended for acceptance by the Government. In conclusion, Mr. Malan said that it had been suggested that the matter be inquired into by the Public Accounts Committee, and the Government offered no objection to that.

The list of certificates issued by the Mines Department for the month ending 31st January, 1918, is as follows:—Mine Overseers' Certificates (Metalliferous): T. Alexander, F. A. H. Bailie, J. Binns, A. S. Davis, J. Uren; (Coal) M. T. Burgess, J. Routledge, A. J. Swainson.

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THE IMPERIAL INSTITUTE: RESEARCH FACILITIES FOR SOUTH AFRICA.

Information Available Regarding Minerals and Raw Materials.

It has been requested by the Executive Council of the Imperial Institute that publicity should be given in the Dominions to the operations of the Institute, especially as regards the facilities it now possesses for affording information respecting raw materials and their value for commercial purposes. Under recent changes of the constitution the basis of the Institute has been considerably widened, especially as regards the representation of the Dominions, to whom it is now in a position to render increased service. A committee has been formed for each Dominion, with the High Commissioner as chairman. The committee for the Union and Rhodesia consists of the following gentlemen: The Right Hon. W. P. Schreiner, K.C., K.C.M.G., Dr. Horace I. Brown, F.R.S., Mr. C. du P. Chiappini (Trades Commissioner), Mr. Frederick Dyer (Messrs. Dyer and Dyer), Mr. D. C. Malcolm (Director B.S.A. Co.), Mr. C. W. S. Maude (B.S.A. Co.), Mr. William Soper (Messrs. Davis and Soper). The chairman of the Executive Committee (Lord Islington) and Professor Wyndham R. Dunstan, Director of the Institute, are *ex officio* members of this and other Dominion Committees. The Committee meets periodically to receive reports and make suggestions regarding the work of the Institute for South Africa. In a recent report received by the Department of Industries, the Committee has put forward valuable suggestions for the improvement of the present South African Court, the exhibits in which require replacement by more up-to-date samples. The proposals put forward are now being considered by the Government. The principal objects of the Imperial Institute, it may be stated, are (1) to assist producers overseas to find appropriate openings for raw materials and primary manufactures and (2) to furnish manufacturers throughout the Empire with information as to the sources of supply within the Empire of raw materials which they need. The Institute in its several departments possesses an expert staff with special knowledge of the various raw materials and their industrial and commercial uses. The staff attached to the Information Department deals with the collection and supply of information respecting the sources and modes of utilization of raw materials, prepares statements for distribution and publication, and answers all inquiries received at the Institute from the Dominions, Colonies, India, and elsewhere. The staff attached to the laboratories is engaged in investigating the composition and value for commercial purposes of raw materials. The whole of this work is carried on in communication with manufacturers and Chambers of Commerce and with the advice of technical committees, which include well-known technical and commercial experts. A special staff is devoted to mineral work, which is carried on with the advice of a Committee on Mineral Resources, on which, besides specialists, the Home Government Departments concerned are represented. It is believed that this useful work will be valuable in aiding the Imperial Mineral Resources Bureau, if established in accordance with the resolution of the Imperial War Conference. A valuable adjunct to the Institute's work is provided by the Exhibition Galleries, in which are included exhibits of the pastoral, agricultural, forest, and mineral resources of South Africa, including the exhibits of Rhodesia separately shown. These collections, though not yet completely equipped, are not only of utility in connection with the work referred to, but are also of general and educational importance in providing an object lesson in the possibilities of South Africa. It is intended, in addition to bringing up to date and maintaining the comprehensive collections of all the countries of the Empire now shown in the Exhibition Galleries in London, to arrange for special exhibitions of raw materials throughout the country in co-operation with the Chambers of Commerce. In order to illustrate the kind of assistance which the Institute can render, a few recent examples of its numerous operations for South Africa may be quoted.

TIMBERS.

Of the South African timbers recently dealt with by the Imperial Institute, boxwood is specially important. South African boxwood (*Buxus macowanii*) was shipped to Great Britain some years ago, but quickly fell into disuse owing to its tendency to "check," i.e., to develop small cracks after being worked. A number of logs of the wood were sent to the Imperial Institute in 1913, when the trade had almost ceased. These were examined and the working qualities of the wood were carefully determined. The results were published in the *Bulletin of the Imperial Institute* and a trial consignment of the wood requested for sale. This consignment was carefully prepared by the Forest Department, and on its arrival in London was sold at a satisfactory price. It was ascertained that the buyers found the wood quite suitable. Further shipments were recommended, and these on arrival in London were also sold at satisfactory prices. This led to a revival in the trade, and to a great increase in shipments by private firms, and there is now every prospect of a steady increase in the demand for South African boxwood, as soon as normal conditions are re-established.

PAPER-MAKING MATERIALS.

It is well known that the bulk of the world's supply of paper is made from spruce and other soft woods, the supplies of which are steadily diminishing. The quantities of soft woods available within the Empire are comparatively small, and so it has come about that the Empire is largely dependent on foreign countries, especially Scandinavia, for its supplies of paper or the wood-pulp from which it is



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made, the chief sources of supply within the Empire being Newfoundland and Canada. The Imperial Institute has therefore given special attention to the possible substitutes for wood, which are to be found in the grasses growing in tropical and sub-tropical countries. Among these is the tambookie grass of South Africa. This, on examination at the Imperial Institute, was found to give a yield of about 33 per cent. of paper of excellent quality, and the prospects of a paper industry in South Africa based on this material are now being carefully considered. Tambookie grass is by no means the only paper-making material obtainable in South Africa, and from the information available at the Imperial Institute it seems likely that the range of materials available will enable several classes of paper to be made.

WATTLE BARK.

The war caused a greatly increased demand in the United Kingdom for leather for army purposes, and at the same time seriously reduced the supplies of available tanning materials previously obtained from the Continent. This shortage of tanning materials afforded a good opportunity of calling the attention of British tanners to wattle bark, an excellent tanning material which is produced on a large scale in South Africa but had previously, owing to lack of demand in Great Britain been exported principally to Germany. A circular was accordingly prepared by the Imperial Institute giving information as to the quantities of wattle bark which could be supplied by British countries, the value of the bark as a tanning material, and the average price of the bark. This circular was widely distributed to tanners in the United Kingdom, and also to merchants and brokers dealing in tanning materials. As a result of this action a large number of inquiries were received from firms in the United Kingdom, who were given further information on the subject and put into communication with producers of the bark in South Africa, with the result that the consumption of wattle bark has greatly increased in the United Kingdom, and there is a prospect that this country will in future be able to take most of the South African output either in the form of bark or extract.

CASSAVA STARCH.

In the past much of the starch used for industrial purposes in this country has been imported from Germany and Holland. Considerable interest therefore attaches to the possibility of increasing supplies of such starch from British territories overseas, and one of the most promising sources of supply is cassava, which is widely grown in British tropical Colonies. A sample of cassava starch recently received at the Imperial Institute from Rhodesia was found on examination to represent a fairly good quality of starch which should find a ready market in the United Kingdom if offered in commercial quantities. Estimates and information regarding suitable plant for the preparation of the starch were also furnished by the Imperial Institute to Rhodesia.

MINERALS.

A large number of minerals from South Africa and Rhodesia have been examined and valued, including the ornamental green stone known as verdite, natural ochres, magnesite (now of great importance as a refractory in the manufacture of steel), beryl, mica, coal, limestone, radioactive uranium minerals, tantalum ores, asbestos, and corundum. Samples of Transvaal corundum having been received and found to be of promising quality, the shipment of a trial consignment was suggested by the Imperial Institute. This on arrival in the United Kingdom was sold in consultation with the Imperial Institute at a good price, and there is now a prospect of a good market being found for the corundum in that country. Before the war this corundum was in no demand there and therefore was exported to Germany. There has been since the war a great scarcity of potash in the United Kingdom owing to the fact that Germany has hitherto been depended upon for the raw material. Materials representing possible commercial sources of potash from South Africa and Rhodesia are under consideration. Among other subjects which are receiving attention for the Union and Rhodesia are natural dyestuffs,

sugar-cane wax, sisal hemp and other textile fibres, various paper-making materials, and oil-seeds. The few examples quoted in detail will make it clear that the Imperial Institute is now in a position to act as an important central agency for the promotion of inter-Imperial commerce and trade. The Executive Council also desires to point out that the Imperial Institute is not only concerned with scientific research, but is equipped for investigating and supplying information respecting technical and commercial matters. In this respect it performs duties which are additional to those of the Board of Trade, a Department of His Majesty's Government in London with whom it has been officially arranged that the Imperial Institute shall in future deal with inquiries respecting the raw materials of the Empire. In this connection it will be seen that a Raw Materials Committee has been nominated by the Association of Chambers of Commerce of the United Kingdom to take action on the results of work performed and information collected at the Imperial Institute. This Committee includes representatives of Chambers of Commerce throughout the country, and affords an important link for the operations of the Imperial Institute with the commercial community of the United Kingdom and for the development of trade with different parts of the Empire. The *Bulletin of the Imperial Institute* is the principal medium for the publication of information collected and of the results of the inquiries conducted. Other special publications are issued from time to time. It will be seen that the sphere of the Imperial Institute is now clearly defined, and the Executive Council desires that the work should supplement and not overlap that of other organizations, either for scientific research or for other purposes, whether established in the United Kingdom or in South Africa, and that cordial co-operation with such agencies should be arranged. The Committee for South Africa has already held several meetings and is actively at work. Special attention, as already indicated, is being given by the Committee to the extension and improvement of the South African Section of the Exhibition Galleries. Here there should be an up-to-date representation of the pastoral, agricultural, forest, and mineral resources of the Union of South Africa as well as of Rhodesia. Owing to lack of funds the existing exhibits are in some respects not up-to-date, and many additions are necessary. So far as Government inquiries from South Africa are concerned the Institute is in direct communication with the Department of Industries and also with the British South Africa Company, Rhodesia. Suggestions and requests for information are now invited from organizations in South Africa which are in any way concerned with the operations briefly described in this article. These can either be addressed direct or transmitted through the Department of Industries. Inquiries will be welcomed about South African raw materials and primary manufactures and as to the provision of possible markets for such articles in the United Kingdom and in the other parts of the Empire. Inquiries from South Africa for raw materials, etc., from other countries are invited, and every endeavour will be made in all cases of the kind to bring producers and users into communication with each other. At the same time the Institute is in a position to supply technical reports as to the value of raw materials, etc., submitted for investigation, and to give information as to the best means of exploiting these when they are found to be of commercial value and likely to be useful in the development of the industries and commerce of the Empire.

MINING INSTITUTE.

Government Certificates for Mine Managers and Overseers.

RECENT RESULTS:—

OVERSEERS: Practically all passed during 1917.

MANAGERS:

Sept., 1917—Sixteen passes and three conditional passes.

Jan., 1918—METAL MINING—All passed but one.

COAL MINING—All passed but one.

Apply: Professor JOHN YATES, St. James' Mansions, Eloff St.

"T.C.L." INTERESTS: QUARTERLY REVIEW.

Tin Mining Results—Asbestos and Corundum Production.

THE "T.C.L." directors' interim report for the period from 1st October to 31st December, 1917, has the following: Mining and Prospecting: Groenfontein Tin Mine: 1,816 tons of ore were crushed during the quarter, producing 68 long tons of concentrate. The year's operations, which included a large amount of prospecting and developing work, showed an estimated credit balance of £6,100 as at 31st December. The main tin faces have somewhat improved, and development work has exposed further ore bodies. Mutue Fides Tin Mine: Milling re-commenced at the beginning of December, and 460 tons were crushed, producing 20 long tons concentrate. The year's operations included a great deal of prospecting and developing work. Mining and prospecting operations have, however, been considerably curtailed since early November owing to the shortage of labour. The ore reserve accumulated at grass at 31st December, 1917, was estimated at 1,850 tons containing 124 tons of concentrate. The main working faces continue to carry average exposures of ore. Mining interests held by the company: Penge No. 780, district Lydenburg.—Work has been carried on continuously by the tributors, and a satisfactory output of asbestos has been maintained. Owing to heavy rains a temporary suspension of operations has been caused since the close of the year. Mampakuil No. 225, Zoutpansberg: About 50 short tons of corundum have been shipped from the farm under the tributing agreement. Fairview (T.C.L.), Ltd.: The tributors crushed 3,907 tons, yielding 859 ozs. gold during the quarter, but their experiments with the flotation plant have not proved successful so far. Rietfontein No. 1228, district Lydenburg: The tributors report good progress in development. They expect to commence milling operations in February. Holfontein: No. 3 borehole was down 864 feet in quartzite, and No. 4 borehole was down 236 feet in dolomite on the 28th December, 1917. These depths have since the close of the year been increased to 928 feet and 330 feet respectively.

Swaziland Tin, Ltd.: 108.95 long tons of concentrate were produced during the quarter at an estimated profit of £11,204 (including adjustments of previous shipments). An interim dividend of 5 per cent. was declared for the half year ended 31st December, 1917, the amount distributed being much less than the profit earned owing to the delays in realising the product due to restrictions of shipping facilities. The sales effected during the quarter covered a further portion of the farm Zetland, No. 49, Bloemhof, and 15 township lots. Lot 10, Parktown, previously taken over under a mortgage bond, was disposed of at a satisfactory price. Braamfontein Co., Ltd.: Sales have continued on the satisfactory basis last reported. The demand for building lots and for building facilities has been active despite the increased cost of building materials. Prospects for the coming quarter are, however, dependent on the extent to which the cost of building will further increase. Investments: Loans amounting to £1,475 have been repaid in full, and current mortgages reduced by £4,810. Building loans to purchasers of Bellevue Central township lots have been issued to the amount of £713, and the mortgage bonds and other advances account has been increased by the sum of £3,958 in respect of balances owing on sales of property. Agricultural and pastoral development: New leases have been entered into in respect of four farms. Abnormally heavy rains are recorded in most parts of the Transvaal during the quarter, and in the Eastern Transvaal a certain amount of damage has occurred in respect of the maize crop, though the maize outlook for the season is, on the whole, satisfactory. Grazing all over the country is particularly good, and our stock is in excellent condition. Additional stock, to the number of 700, has been added to our herd during the quarter. The forest plantations at Pan and Holfontein have greatly benefited by the heavy rainfall, and are making good growth. The new season's plantings at both places have just started. Water boring operations on the ranching block have been considerably interfered with by the heavy and insistent rains.

PROSPECTS OF THE EAST RAND PROPRIETARY.

THE development results in the East Rand Proprietary Mines, Ltd., for the quarter ended December 31 are as follow: Number of feet driven, risen and sunk (excluding shafts), 8,719 feet; footage sampled, 7,135 feet; average reef channel width, 32 inches; average assay value over reef channel width, 8.6 dwts. According to the directors' quarterly report, the working profit for the quarter shows an improvement when compared with that for the quarter ended September 30 last, although the tonnage milled shows a considerable decrease. The increase in the profit is due, firstly, to the sum received (£24,754) on the realisation of gold in excess of its original valuation; secondly, to the closing of the Comet mill in November, the clean-up of which produced gold in excess of a normal clean-up; and, thirdly, to the improved grade of ore milled, which is attributable to the policy indicated in the last quarterly report of stopping development in the poorer areas, thus obviating the milling of a considerable amount of low-grade ore. Whilst the profits for the current quarter are sufficient to defray the whole cost of the legitimate fixed charges for the quarter, a deficit would have resulted if revenue of an extraordinary nature had not been available. Notwithstanding this, the board has decided to continue work in connection with the exploitation of the southern areas (vertical shaft and 26th level crosseut), in the hope that the funds on hand will not be materially drawn upon and all fixed charges met out of profits to be earned by milling operations; but the difficulties in connection with supplies, together with the increased cost of stores, render the achievement of that object a matter of great uncertainty. It has not been the custom to charge expenditure on

authorised votes and war leave pay to working costs, but as from January 1 all such expenditure will be so charged. The items which will not be charged against working costs, and which will have to be met out of the profits earned, will now be redemption of debentures, debenture interest, miners' phthisis compensation fund, undermining rights annuity, Government taxes and donations, estimated at the present time to amount to £11,000 per month, exclusive of cost of sinking the vertical shaft and continuation of the 26th level crosseut to intersect it, the expenditure on which, as previously advised, will be charged against mine development suspense account, which at the end of the year showed a credit of £322,853, of which the sum of £10,550 has been drawn for meeting the company's cash requirements. The vertical shaft has been sunk 369 feet, and was 598 feet in depth at the end of December, 1917. The 26th level crosseut was driven 240 feet, and had attained a length of 1,527 feet at the same date. The Francois process has, so far, proved efficacious in sealing off water-conveying fissures where met with in the mine. On the 26th level, the crosseut to intersect the vertical shaft has been advanced 520 feet beyond the point where cementation was effected. Water has again been encountered in another fissure, and the process is being applied to this new point. In the vertical shaft the quantity of water has now increased to about 3,000 gallons per hour, but the quantity is not as yet considered so serious as to necessitate the resort to cementation, which may later have to be applied. The development values for the quarter show an improvement, owing to development being virtually restricted to the areas showing most promising values, that is, to the Driefontein section and the section east of the Cinderella.

THE PRINCIPLES OF UNION INCOME TAXATION.

Points from an Important Memorandum by Mr. E. J. Kay.

The Farming Income Taxation Inquiry Committee resumed its sittings at No. 91, Parliament Street, Capetown, the members present being Sir Wm. van Hulsteyn, M.L.A. (chairman), Mr. E. Chappell and Mr. P. W. Michau.

Further evidence was given by Mr. Ernest J. Kay, Assistant Commissioner of Inland Revenue.

Mr. Kay put in a memorandum by the Inland Revenue Department dealing with the question as to whether the existing principles of taxing incomes derived from farming operations are unsuited in any respect to the circumstances of the Union. In this it was stated that a review of the taxing systems of other countries brings out several principles which are not embodied in the Union Act, viz.: (a) When the arbitrary basis is not applied a stock account is invariably a factor in ascertaining farming profits; (b) the interpretation of income is more comprehensive; (c) income from property is taxed at a higher rate than income derived from personal exertion; (d) the deductions in respect of abatements are more liberal for urban taxpayers; (e) the tax on farming profits is usually levied through or in conjunction with a property or land tax.

With reference to (a) farming profits in other countries are invariably determined according to the ordinary commercial principles of bookkeeping when not taxed through a land or property tax. This necessitates the value of the livestock and produce on hand at the beginning and end of the year being taken into account. Queensland, however, is a notable exception. The farmer in that country has the option of framing his returns on a receipt and expenditure basis.

INEQUALITY OF TAXATION.

In the Union a taxpayer who occupies his own residence, and receives no benefit in the shape of money but receives money's worth, is not taxed in respect of the annual value of such residence. But immediately he lets his residence the rental is taxed as income. It is somewhat difficult to defend this differentiation that capital sunk in one form of investment is taxable and in another form is exempt. As more of the farming community than the urban community occupy their own houses, this departure from the principle of ability to pay tends to create inequality of taxation as between the two communities. In other countries equality is secured by introducing a basis calculated either on the annual rental value or a percentage of the capital value of the residence when occupied by the owner. Another type of income that is not taxed in the Union but is held liable in other countries is casual profit from speculation and sales of property. In many other countries this type of casual profit is taxed by means of a separate levy generally known as a betterment or increment tax. The best examples are to be found in the United Kingdom, Germany and some of the American States. A memorandum is annexed which explains the principles and method of levying an increment tax.

EARNED AND UNEARNED INCOMES.

With reference to (c), the principle of taxing earned incomes at a lower rate than unearned incomes is now generally accepted. If the proposition that under the Union Act property does not bear its due share of the burden is accepted, the admission of the generally accepted principle of discrimination between earned and unearned incomes will create a much wider gap between the existing known method of taxing property and what it should be in the experience of modern fiscal science.

With reference to (d), the income tax laws of most countries recognise that there is a point usually termed the minimum of existence below which taxation of incomes is inexpedient. In the Union Act incomes below £300 are not taxed, and this amount is deducted from the incomes of married taxpayers. The main object of this deduction is to give the tax a more progressive rate in the lower categories, and to allow to taxpayers with small incomes the means of subsistence free of taxation according to the South African standard of living. Unfortunately, the living standard varies considerably throughout the Union, and the greatest variation exists between the urban and rural residents. To ensure substantial justice this deduction of abatement, as it is

called, should be higher in the localities where the minimum cost of living is greater, i.e., the urban localities, than in the rural districts.

DISTRIBUTION OF THE BURDEN.

The systems adopted by the various countries were briefly reviewed and the memorandum proceeded: The conclusion that may be drawn from this brief analysis of the taxing systems of other countries indicates that the present system is unsuited to the circumstances of the Union. It must be admitted that the present method has not worked well in practice, and whatever fails to work in practice is indefensible as a legislative proposition. The law as it stands does not cover all types of income; property as such pays but little as compared with industry, and it must be remembered that the exemption of one class means the extra taxation of another. In view of the experience elsewhere, it would appear that a better balance in the distribution of the burden of the income tax could be attained by either remodelling the existing Act or by imposing alternative taxes which would fall more on property and casual or intermittent profits which have hitherto not borne their due share of the common burden.

From an administrative point of view the levying of a property or land tax presents many difficulties. It could not be brought into operation for three or four years, owing to the necessity of a general valuation, which would cost at least £150,000, and the annual revisions of the valuations would entail a regular expenditure of probably £20,000 per annum. Unless therefore such a form of levy entirely displaced the income tax now imposed on the farming community it cannot be regarded as an economical tax to collect.

AN INCREMENT TAX.

Annexed to the memorandum was a statement with reference to an increment tax, in which the following observations appeared: As the present income tax does not touch profits made on the sale or transfer of fixed property, except when the transactions are undertaken as a business, the advisability might be considered of levying a toll on such profits. Whilst these transactions are as a rule casual and irregular, the profits made are considerable, and such a levy would undoubtedly help to restore the balance of taxation as between the property and industrial classes. In a new country like South Africa, where there is much undeveloped land and unoccupied urban sites, State expenditure and an increasing population tend to create enhanced values without any effort on the part of the owners. This increase, whether fortuitous or due to the expenditure of local or the State authorities on roads, railways, bridges and irrigation works, when realised, is profit, and is commonly accepted as a fit object for taxation. Since in the Union the Government has spent over 25 millions, apart from salaries, on the development of the country. Now, if the increase in values is the result of the industrial activity of the State, then the State may fairly claim from the owner a share of the increase. It is consistent with the quid pro quo principle, since the State only takes a fraction of the gain to which it has itself contributed. Further, it is consistent with the principle of ability to pay since it is levied only on realised gains. There are two classes of increment taxes, the direct, which is levied upon the periodic increase in the value of the real estate, every one, two or more years; the indirect, of which change of ownership is the decisive element. The latter type would be more suited to South African conditions in the absence of an up-to-date general valuation. A general outline of a scheme that might be made applicable to the Union was given.

P.O. Box 3807.

ROCKWOOD PRESSED STEEL UNIONS

H. ALERS HANKEY - - - Sole Agent.

THE WEEK IN THE SHAREMARKET.

An Unsatisfactory Record—Zaaiplaats Activity—Firmness of Government Areas.

The market was quiet but firm on Saturday, with Van Ryn Deeps unchanged and advances in Government Areas, Springs, Modder East and the options. Business is still very much restricted. After the call African Farms rose to 8s. 9d., the highest figure they have touched for months. Things were dull on Monday morning. The few improvements being in Brakpans and Rand Selections. Springs came unchanged, but Van Ryn Deeps, Government Areas, Modder Easts and options the turn easier. Pretoria Cements are out of favour for the time being. African Farms are still buyers at Saturday's figure. Daggafonteins for the first time, at any rate this year, had no supporting order at 25s., consequently the seller had to take 24s. 9d. The market hardened in certain directions. After the call African Farms realised 9s., Government Areas 74s. 9d., Springs 67s. 9d., Brakpans 93s. 6d., and Modder Easts 22s. 9d. On Tuesday morning closing prices were maintained at the call with a slight improvement in Roibergs and Zaaiplaats. Transactions, however, were of a decidedly retail description, not a single large order being put on the market. Business was quiet all day and prices unchanged at the close, with the exception of Zaaiplaats, which rose to 10s. 3d. These again engrossed attention at the opening on Wednesday and numerous sales were put through at from 10s. 6d. to 10s. 9d. At the call there was rather more liquidation. City Deeps, Modder Deeps, Pretoria Cements, Springs and Wit. Deeps were all weaker. For the moment it looked as if Government Areas were to share the same fate, as the first buying offers of 74s. 6d. were eagerly snapped up, but the buyers were too strong and at the end more were wanted at the price. Van Ryn Deeps were slightly harder and Modder Easts unchanged, but the options came easier. Zaaiplaats continued active to the close—the first field day the jobbers have had with penny differences for a long time. On Thursday morning Zaaiplaats were again in play with opening sales at 10s. 6d. and falling back to 10s. 3d. At the call they finished up at 10s. sales and sellers, and the gentleman in the lobby is probably sadly carrying home the baby. The only important stock which showed improvement was Government Areas, the belief in whose future possibility may be inferred from a purchase at 75s. 9d. ex London. The outside dealings for the week were as follows: Sakalavas, sales from 13s. to 11s. 3d., mostly in odd numbers. Southern Van Ryns, 11s. 3d. and 11s.; S.A. Alkalis, 67s. 6d.; Monteleos, 33s. 9d. to 32s. Other quotations: Henderson's Estates, buyers 5s.; Rietspruits, buyers 12s. 6d.; Union Tins, sellers 3s. 6d.; Phoenix, 10d.—11d.

The market was no worse on Friday morning, in fact there were one or two improvements, as the following alterations will show: Sales: African Farms, 9s. 2d.; Daggafonteins, 24s. 9d., and buyers: Options, 9s. 6d.; City and Suburbans, 14s. 3d.; East Rand Mining, 16s. 9d.; Government Areas, 75s. 3d., and buyers: Lydenburg Farms, 8s. 3d., and buyers: Modder Easts, 22s. 9d., and buyers: Three-year Options, 7s. 6d.; S.A. Lands, 6s.; Zaaiplaats, 10s. 1d. and 10s. 2d. Buyers and sellers: City Deeps, 55s. 6d.—57s. 6d.; Mines Selections, 25s. 9d.—26s. 6d.; Cloverfields, 9s. 3d.—9s. 6d.; Glynn's Lydenburgs, 17s. 6d. buyers; Leeuwpoort, 17s. 6d.—17s. 9d.; Pretoria Cements, £5 12s. 6d.—£5 15s.; Swazi Tins, 23s. 6d. buyers; Sub Nigels, 21s. 3d. buyers.

	Fri., 15th.	Sat., 16th.	Mon., 18th.	Tues., 19th.	Wed., 20th.	Thurs., 21st.
African Farms . . .	8 3*	8 6	8 9*	8 11	8 10	9 1*
Anglo-Amer. Corp. .	—	25 0*	—	—	—	—
Apex Mines . . .	6 7*	6 6*	6 6*	6 6*	6 6*	6 6*
Bantjes Cons. . . .	2 6*	2 6*	2 7	2 6*	2 6*	2 10
Brakpan Mines . . .	—	91 0*	92 0*	93 6*	93 6*	93 6
Breyten Collieries .	—	10 0*	—	—	—	10 0*
Brick and Potteries .	—	5 0*	—	—	—	5 0*
Bushveld Tins . . .	0 6*	0 6*	0 6*	0 9†	0 7*	0 6*
Cinderella Cons. . .	—	2 6*	2 6*	—	2 6*	—
City & Suburbans .	14 3*	14 6*	14 6*	—	14 6	14 3*
City Deeps	6 0†	58 0*	58 0*	58 0*	57 6	56 0*
Cloverfield Mines .	9 0*	9 1*	9 2	9 2	9 2	9 1*

	Fri., 15th.	Sat., 16th.	Mon., 15th.	Tues., 19th.	Wed., 20th.	Thurs., 21st.
Clydesdale Colls. . .	14 0*	11 0*	11 0*	14 6*	14 0*	14 0*
Concrete Construct. .	3 9*	—	3 9*	—	—	—
Cons. Langlaagtes . .	16 0*	15 6*	—	15 0*	16 0†	17 0*
Con. Main Reefs . . .	13 6*	—	12 0	—	12 0*	12 0*
Con. Mines Selection	25 3*	25 6*	25 0*	25 6*	27 6*	25 3*
Coronation Freeholds	0 7*	—	0 7*	0 7*	0 9†	0 8
Crown Diamonds . . .	2 3*	2 3*	2 3*	2 3	2 1†	1 9*
Crown Mines	36 6†	36 6†	36 6†	36 6†	36 6†	36 6†
Crown Mines Deb. . .	—	—	15 3*	—	—	—
Daggafontein Mines	25 0*	25 3*	24 9	24 9*	25 0†	24 6*
Do. Options (3 yrs.)	10 0*	10 0*	10 0*	9 9*	9 9	9 5*
East Rand Coals . . .	2 0	2 0*	2 0*	2 0*	2 0	2 0*
East Rand Deeps . . .	1 0†	—	—	—	1 0†	1 0†
E.R. Minings	16 9*	16 6*	16 6*	16 6*	16 6*	16 6*
East Rand Props. . . .	5 4*	5 4*	5 4	5 3*	5 3*	5 3*
East Rand Deb. . . .	—	£57*	—	—	—	—
Eastern Golds	1 3†	1 3†	1 0	—	1 0	1 0*
F. Smith Diamonds.	3 0*	3 0*	3 0*	3 0*	3 0*	3 0*
Geduld Props.	40 6*	40 6	40 0*	40 6*	40 3	39 6*
Glencairns	—	1 1*	—	1 1*	1 1*	—
Glencoe Collieries . .	8 0*	8 0*	8 0*	8 0*	—	8 0*
Glynn's Lydenburgs	17 6*	—	17 6*	—	17 3*	17 0*
Government Areas . .	75 0B	74 9*	74 6*	74 6	74 6	75 2B
Jupiters	4 6	4 6*	4 6*	4 6*	4 6*	4 9†
Klerksdorp Props. . .	1 9*	1 9*	1 9*	1 9	1 9*	1 9*
Knight Centrals . . .	4 1	4 0*	4 1*	4 0*	4 1*	4 0*
Knights Deeps	5 0*	—	—	—	5 0*	5 6*
Lace Props.	12 6*	13 0	12 10†	12 9*	12 9*	12 9*
Leeuwpoort Tins . . .	16 6*	18 0*	18 3	17 9	17 0*	17 0*
Lydenburg Farms . . .	8 1*	8 1*	8 3	8 3*	8 1	8 5A
Main Reef Wests . . .	2 7*	2 7*	2 6*	—	—	—
Meyer & Charltons . .	—	100 0†	—	—	90 0*	100 0†
Middelvel Est.	1 0*	1 0*	1 0*	1 0*	1 0*	1 0*
Modder B's	160 0†	—	158 6*	160 0†	160 0†	159 0
Modder Deep	137 6*	138 6*	138 6*	138 6*	138 0	138 0A
Modder Easts	22 6	22 9	22 6	22 7½	22 6	22 0*
Do. Options (3 yrs.)	7 5*	7 6	—	7 6	7 3*	7 4*
Do. Options (4 yrs.)	8 6*	8 10	8 9	8 8*	8 8	8 8
Langlaagte Estate . .	12 6*	12 6*	12 6*	—	15 0*	—
Natal Navig. Col. . .	19 0*	—	—	19 0*	—	19 0*
National Banks	—	280 0†	—	280 0†	—	280 0†
New Boksburgs	—	1 0*	—	1 3†	1 3†	—
New Eland Diam. . . .	26 0	25 0*	—	25 0*	25 0*	26 6
New Era Cons.	9 6	9 6†	9 3*	—	9 0*	9 3*
New Geduld Deeps . .	6 1*	6 1*	6 0*	6 1	6 0*	6 1*
New Heriots	—	—	—	27 0†	—	27 0†
New Kleinfonteins . .	14 3	14 3	14 3*	14 3*	14 3	14 0
New Modder	—	—	—	460 0†	450 0†	442 0*
New Unifieds	4 0*	—	4 0*	4 0*	—	4 0*
Nigels	2 6*	2 6*	2 6*	3 0†	3 0†	2 6*
Nourse Mines	18 0*	18 0*	—	18 6*	—	—
Pretoria Cements . . .	116 3*	115 0*	112 6*	117 6†	110 0*	110 0*
Princess Estates . . .	2 6*	2 9†	2 9†	—	—	2 0*
Rand Collieries	3 3	—	—	4 0†	4 0†	4 6†
Rand Klips	10 0*	10 1*	10 2*	10 1*	10 0*	10 0*
Rand Nucleus	1 4*	1 4*	1 4	1 4*	1 3*	1 3*
Rand Select. Corp. . .	82 0*	82 0*	84 0	85 0	85 6*	85 0*
Randfontein Deeps . .	4 0*	4 0	4 0*	4 1*	4 0*	4 0*
Randfontein Est. . . .	—	14 0	13 9*	13 9*	13 6*	13 6*
Roibergs	—	8 6*	8 3*	8 7	8 5*	8 4*
Ryan Nigels	—	3 0*	3 0*	3 0	—	3 0†
Simmer Deeps	2 7*	—	2 9*	2 9*	3 0	3 0†
S.A. Breweries	—	27 0†	—	28 0†	26 0†	26 0†
S.A. Lands	6 1	6 1*	6 1	6 0*	6 0	6 0*
Springs Mines	66 9	67 5	67 3	67 6	66 9*	66 9
Sub Nigels	21 3	21 0*	21 9A	21 3*	21 0*	21 0*
Swaziland Tins	23 6*	23 0*	23 3*	—	—	23 0*
Transvaal Lands . . .	10 9*	—	12 0*	—	12 3*	14 0†
Transvaal G.M. Est. .	14 0	13 0*	13 6*	13 6*	13 9*	13 9*
Van Ryn Deeps	70 0*	70 0	70 0	70 0*	70 6	70 0*
Village Deeps	—	16 6*	16 6	16 6*	16 0*	16 0*
Village Main Reefs . .	—	11 0*	—	—	10 0*	10 0*
Western Rand Est. . .	1 6*	2 0†	1 6*	2 0†	1 6*	2 6†
Witbank Colliery . . .	45 0*	—	47 0†	47 0†	—	47 0†
Witwatersrands . . .	28 0†	—	28 0†	28 0†	—	—
Wit. Deeps	—	—	5 10†	5 9	5 3	5 6
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SOUTH AFRICAN INSTITUTE OF ELECTRICAL ENGINEERS: VALEDICTORY ADDRESS BY Mr. WILL H. PERROW.*

WHEN addressing you at the commencement of my year of office I expressed the hope that before the end of 1917 a universal peace would have been concluded. Alas! we are still in the throes of this terrible world struggle. I drew attention at that time to the urgent need of utilising to the fullest extent all the resources at our command in men and material to win through. I feel I must emphasise this fact again to-night. If this were true twelve months ago, it is equally, yea doubly, true to-day, with the increasing wastage in every department. I cannot but think that as individuals, and as a body, we should give special heed to these facts at a time like our annual gathering. We may well again ask ourselves, as an Institute, if during the year we have been concerned to do all that was possible to assist in attaining our common goal, of emancipating the world from the grip of the monster that has ruthlessly disregarded the rights and privileges of smaller states and of innocent women and children. We already have a great number of our members who are giving their all to help to achieve victory, and with respect to these men I shall again refer later in my address. We have been greatly cheered and encouraged during the year by the entrance into the struggle of the United States of America. The time came when, as a nation, they felt it impossible to do otherwise. We trust that ere long we, as Allies, shall realise to the full what this will mean in men, money and material. All the nations engaged in this war on the side of right, freedom and liberty will hail with pride the statement of President Wilson, made on behalf of the American people, viz.: "We therefore demand that the world be made fit and safe to live in." All the peoples of the world are in effect partners in this interest. Unless this principle be made its foundation, no part of the structure of international justice can stand. The moral climax of this, the culminating and final war for human liberty has come, and they are ready to put their own strength, their own highest purpose, their own integrity and devotion to the test; and about the same time we have the outspoken utterances, with almost the identical sentiments, delivered by our own Prime Minister, Mr. Lloyd George. The Allies are as one in this gigantic struggle. We shall fight on, until we have conquered, and until we have set up the beginning of a New World Era. Let this Institute therefore, during 1918, see to it, that by all the means at its disposal it does its bit to the achievement of so noble a task. I desire now, before vacating the presidential chair, to direct your attention to a few matters of interest connected with the work of the Institute during the past year. By reason of my recent removal to the coast, I have experienced some difficulty in preparing any consecutive summary of our work. I had not the balance sheet nor the annual report to aid me, and, above all, I have been deprived of interviewing our esteemed Secretary, whose assistance at such times is very valuable. If, therefore, I should be guilty of inadvertently omitting any matter of interest, I must crave your indulgence. In reviewing the year, I am confident I voice the sentiments of all members when I make the statement that 1917 should cause a profound sense of gratitude in each of us. Notwithstanding the continuance of the war, and the dislocation which follows; the number of our members who are serving at the various theatres of war, the increased duties borne by those that remain, and a host of other contingencies, we have *progressed*, and, as an Institute, we have cause to be proud of our position. It would not have been surprising in view of the above circumstances if we had experienced a lack of interest, and a slacking generally. I remember some years ago Mr. Chas. Saner addressing us, representing the Chemical, Metallurgical and Mining Society, as their President. He made a statement to the

effect that his Society was the only *live* Society in Johannesburg. I do not believe that he could repeat his statement with accuracy before this Institute to-night. We pride ourselves that we are very much alive. I will not here refer to the amount of good work we have done on various committees, and by the preparation and circulation of valuable information. These matters have been referred to on various occasions. I am pleased to state that the attendance and interest shown at our monthly general meetings have been of an encouraging nature, and we frequently observe the attendance at our meetings of those who are not in membership with us. We extend a welcome to such at all times. *Pro rata*, the number of our members, I think I may safely say that we have the largest monthly attendance of any kindred society. Turning now for a moment to the papers read and discussed, I desire to state that quite early in the year your Council decided not to hold the usual recess for the months of July and August. There was a feeling that a certain amount of dislocation followed the recess, and that meetings held directly afterwards were not so well attended. However justified such a step may have been (and personally I feel the experiment was worthy of a trial), members should consider that this meant the providing of 20 per cent. more material for the additional meetings, and your Council experienced some difficulty in securing papers and contributions to meet this demand. Here let me state that there are quite a number of our members who, as yet, have not given papers or contributions, but the Council feel that this inaction arises

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* From "The Transactions of the S.A.I. of E.E."

more from the willingness to allow others to do the work than from any lack of ability on the part of such members to undertake it themselves. It is to be sincerely hoped that in future you will endeavour to lighten as much as possible the work of your Council by volunteering to subscribe material to the monthly meetings. The papers read have not lacked in merit nor variety of subject to those of previous years. They have dealt with quite a number of topics, theoretical, practical electro-therapeutical, and manufacturing, and have proved of the greatest possible interest. At our June meeting Dr. Erasmus Ellis, of this city, kindly responded to an invitation from your Council and gave us a most instructive evening, his subject being "Some Modern Developments in Roentgenology." The lecture was illustrated with some beautiful lantern slides, kindly prepared for Dr. Ellis by one of our esteemed members, Mr. Campbell. The evening proved a most enjoyable one, and was instructive in pointing out clearly the application of electricity in medicine and surgery. Another feature of special interest was, as remarked at the time, it was off the beaten track, and any such diversion from our usual procedure and routine could not fail to be appreciated. Yet another pleasing departure was undertaken by your Council in the month of September. It was arranged, through the courtesy of the management of the City Deep, to hold our meeting at their recreation hall, which meeting took the form of a social function, combined with the exhibition of a very interesting film, entitled "The King of the Road." Mr. J. W. Kirkland (Past President) had already given the Institute two most instructive lectures, illustrated by slides, showing "The Electrification of the Chicago, Milwaukee and St. Paul Railways, U.S.A." These lectures bristled with interest to all engineers, and commanded good attendances, and when Mr. Kirkland kindly offered the Council to exhibit the film if a suitable hall could be found, the formalities were quickly arranged and the evening proved a most successful one; over 400, including a number of ladies, being in attendance. If it were possible in future to hold other such social functions in conjunction with some popular electrical lecture or exhibition, success would be assured. As is common knowledge to members, this Institute has done a great amount of spade work by way of investigation and publications, having special reference to the possibilities of establishing local industries, and the utilisation of the raw and waste products of the country. In point of this fact, and I venture to think largely arising out of such work, Prof. Buchanan (Past President) in September month read a most valuable paper before this Institute, describing "The First Electric Steel-Melting Furnace in South Africa." The establishment of this furnace was the work of the Chamber of Mines, and great praise is due to that body for the success achieved. It has now become an established industry, and is already being developed on a much larger scale. We, in this country, in a thousand and one ways, have been far too dependent for supplies from outside sources, instead of more deeply concerning ourselves about the supplying of our needs from within. I have recently seen and read of small concerns which are being started for the purpose of making us more independent, and every such attempt, however small, should have our hearty support. When we see the hundreds of youths growing up, for whom employment must shortly be found, it is of the highest interest for all such institutes as our own, by investigation, research and publication, to do everything that will induce investors and bring capital for the starting of new industries. I have singled out the two or three foregoing papers because they have been all of them on some new lines; but the whole of the papers have been of a most practical nature. I shall only make a passing reference to some of the committees. You will be pleased to note by the annual report that the Safety Precautions Committee have been successful in getting their recommendations on sub-station protection approved by the Safety First Committee of the Rand Mutual Assurance Co., Ltd., and by the Chamber of Mines. This should give an impetus to proceed on the compiling of other recommendations, and is, I think, a compliment to the many months of hard work put in by this Com-

mittee. We are delighted to note also that one of our prominent members and a Past President, Mr. Bernard Price, has been appointed chairman of one of the most important and comprehensive Committees (Government Scientific and Technical Committee) in this country. We congratulate Mr. Bernard Price on his appointment. As you are aware we are represented on the Governing Body of the Johannesburg Trades School. With pleasure I express my appreciation of the good work being done by them for the youths of the country. Recently an important agreement has been entered into by this body and the Chamber of Mines for the drafting of their apprentices largely from these trade schools, and for a more defined training of these apprentices on the various mines of the Witwatersrand. Such a step can only be productive of good, and tend to produce more efficient workmen. The Chamber is to be congratulated on this most important departure. These boys do excellent work at our trade schools, as both Mr. Woodworth and myself can testify after acting as judges of the electrical section of their work at the last Agricultural Exhibition. I trust we shall continue to be represented on that body, and that the Institute will be keenly alive to the good work being done. There will be no divided opinion over the state of our finances, as set forth in the annual balance sheet; but as these have already been dealt with, I will only state that 1917 is remarkable as far as the prosperity of the Institute is concerned. From three outstanding facts (1) We show the highest total of cash to our credit in any previous year; (2) A considerably larger increase in our membership than previously; (3) We have been able to pay the whole costs connected with the publication of our *Journals* out of the revenue received for advertisement and the sale of the *Journals*. Such results are most encouraging. I am anxious before closing this portion of my remarks to emphasise the fact that a very great proportion of the above success has been achieved on your behalf by the unstinting and conscientious work done by our esteemed secretary, Mr. W. J. Clarkson, and I desire, in your name, to express our thanks to him. The Institute's Gold Medal for the year 1915 was unanimously awarded to Prof. J. H. Dobson, D.S.O., for his papers on "The Distribution Plant of the Johannesburg Municipal Electric Supply Plant," and "The Main Switch Board of the Johannesburg Municipal Electric Supply System." Before concluding my remarks, gentlemen, I desire to make a suggestion to your new Council, to which I sincerely hope they will be able to accede. It is with reference to those of our number (about 60, and representing more than 20 per cent. of our total membership) who are still on active service. Altogether 6 have made the supreme sacrifice since the war began, many have been wounded, and many, in all probability, will carry diseases contracted to the day of their death. We have been speaking in grateful terms of the success of our Institute. Is it not time that we should consider some permanent form of remembering those of our number who at all costs are trying to keep the flag flying, and to secure a lasting peace. We could well consider the procuring of an Illuminated Roll of Honour to these men, which will remain with the Institute as a permanent record of their splendid services. I desire to express my thanks to the Council, who have so willingly and ably assisted me in carrying out my duties; I value very much indeed the assistance thus given me. I also appreciate the Council's consideration and kindness in granting me two months' leave of absence when I found it necessary to go to the coast.

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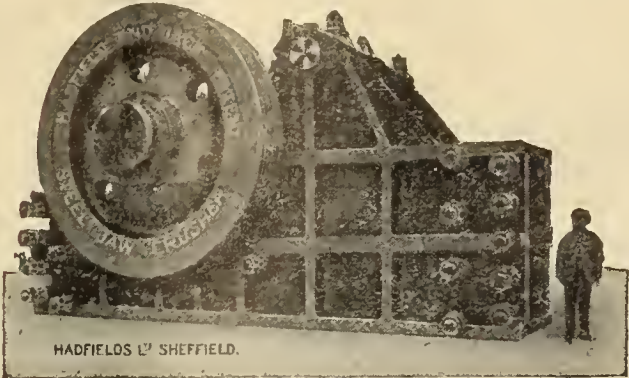
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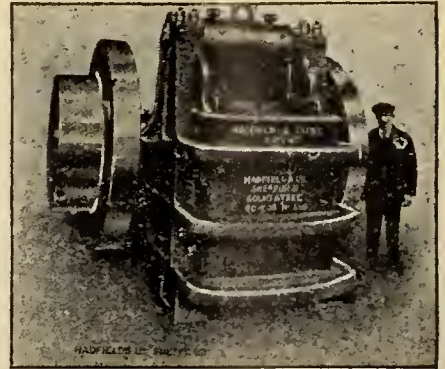


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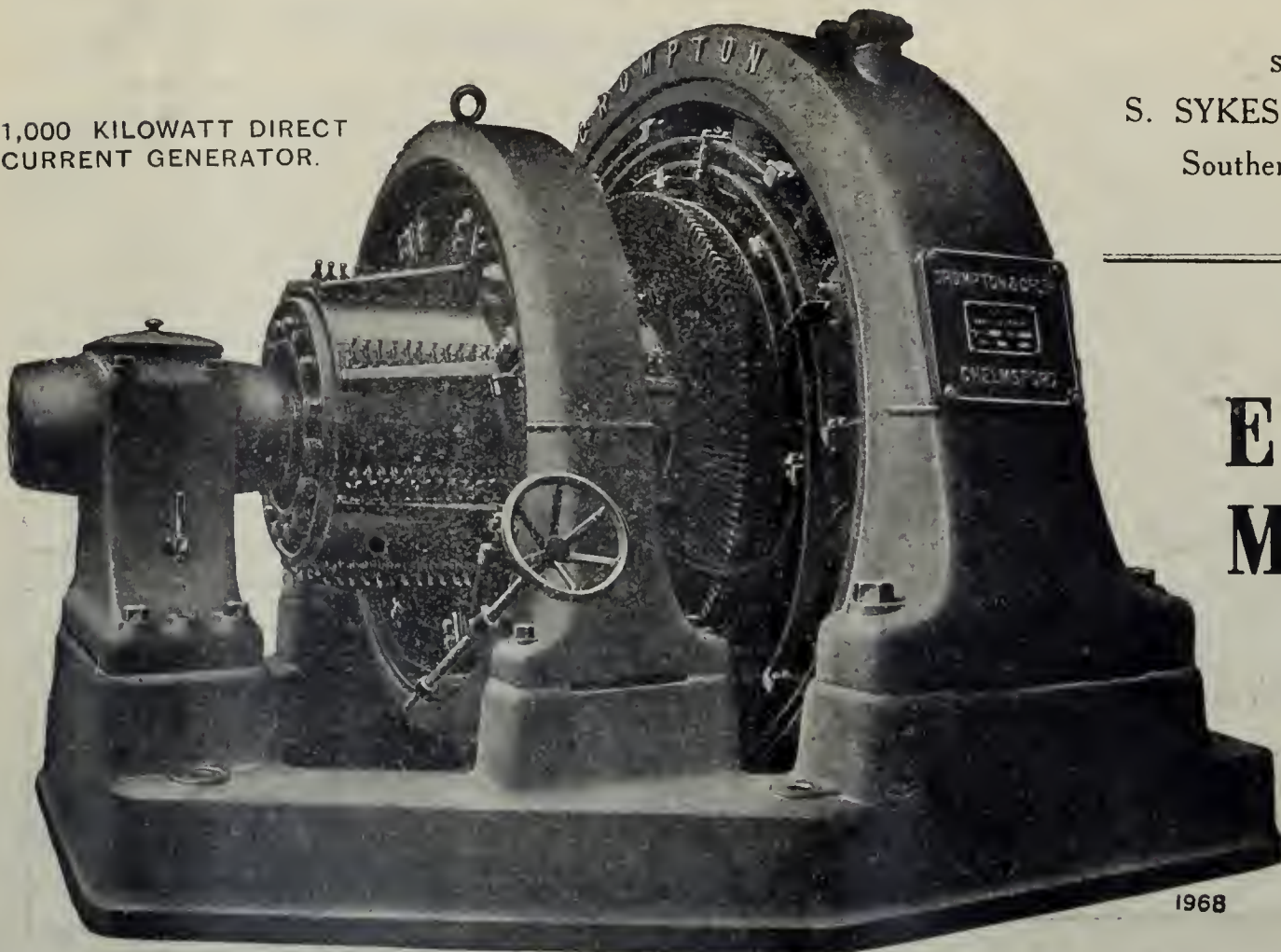
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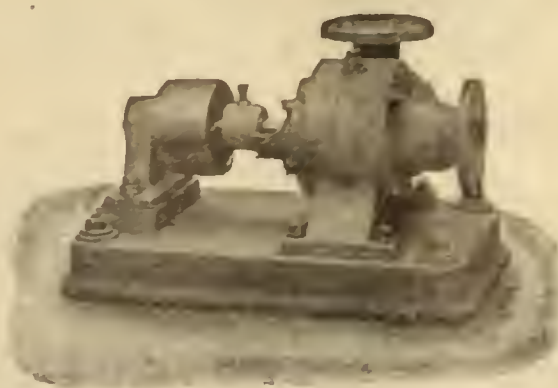
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THE WEEK IN THE MINING MATERIAL AND ENGINEERING TRADES.

Lull in Business—Forty Thousand Tons of Material from America—The Absence of Speculation—Advance in Wire Nails—The Labour Market.

THE lull in business is still pronounced, one reason being the absence of speculation, which has come to a halt chiefly owing to the high values, and dealers are shy in keeping material. There is not the same buying power between merchant and merchant, as compared with a few months ago, in consequence of an apprehensive feeling of cautiousness, for which there are several reasons. According to some the position in Flanders is being carefully watched, particularly amongst holders of special lines at the highest of high prices. However, holders of average assorted stocks, purchased from time to time at average rates, are not very much concerned at the position. An outstanding feature in this respect is the gradual accumulation of new materials and machinery spares in some of the big warehouses. A manager of a representative store states that his stock had never looked better since about six months after the war started, and further additions continue to come along every now and again. He also said that the British Government is interesting itself to keep trade moving, so much so that the shipping position of late between Britain and South Africa has been eased considerably during the present month. The export of meat, butter, maize, wool and other South African produce is in the ascendant.

THE AMERICAN SHIPPING AND TRADE.

The latest cable advices show that about fifteen sailing vessels have been loaded in America for South Africa. Two contain timber and the others general cargo, including mining material, fencing wire, hardware goods, etc., amounting in the aggregate to over forty thousand tons.

Obviously this is another tangible reason for the lowering tendency so noticeable, but remember much qualifying is needed, as the acutely scarce lines, which however are becoming the exception, are still on the up grade. The question of obtaining material from the American makers has also become the lesser difficulty, as compared with getting rail accommodation to the coast, on account of the war conditions. An American importing house here has issued a notice, which amongst other things states that it is necessary to obtain a permit from the American Government to export galvanised iron. Another advice states that whilst the war conditions in America are strenuous, yet there are many manufacturers who are quoting for South African requirements. This on the whole shows that things are getting freer generally.

THE IRON AND STEEL TRADE.

A feature is the advance of wire nails, the latest quotations being for 1 in. and 1½ in. 75s. per 100 lbs.; 2 in., 70s.; 2½ in. to 4 in., 55s.; 5 in. and 6 in., 47s. 6d. This is on account of the absence of shipping from Canada, thus creating a scarcity of nails in Johannesburg. A small lot of steel plates was sold during the week at 80s. per 100 lbs., and although the position has reached an acute stage that is being relieved by the use of the second-hand article. Wire fencing has advanced a little, viz.: No. 8 gal., 52s.; No. 10, 55s.; No. 12, 60s.; No. 14, 65s.; and No. 14 black, 55s. per 100 lbs. With the advices of quantities on the way here, it is expected that prices will remain steady with

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an easier tendency immediately on the arrival of the first new consignment from America. With the exceptions mentioned values remain much the same as before as the business passing is not sufficient to really test the position.

ENCOURAGING SOUTH AFRICAN SUPPLIES.

The central buying department is not only encouraging South African supplies but also the imported material that has been under the derelict ban and stowed away in out-of-the-way places. Much of this has been gradually brought into the market by the temptingly high values obtainable. This has saved the situation, more particularly as regards steel plates, as the second-hand kind filled up the demand just in the nick of time, and will last out until the new arrivals from America. The rush round for second-hand material has filled the second-hand yards practically full to repletion, therefore prices, with a few exceptions, have given away a trifle. Enquiries from other centres are a steady feature. For example, we sent rails to Delagoa Bay and rails and compressors to Capetown during the week. Several promising ventures of S.A. manufacture are a little disappointing, but the initial stages are usually troublesome stages. However, according to the Companies list appearing in the *S.A. Mining Journal* of last week, the White Leads Company has increased its capital from £2,000 to £4,000, which is an excellent augury that the sponsors are determined to make the thing a success.

MINE CHEMICALS.

The mercury supplies have recently been less acute and the price is from £40 to £45 per bottle of 75 lbs. It is not very clear where the supply came from, because according to the latest available chemical journal only about 25 lbs. found its way from Spain to London during the whole month of November. The other sources are from Mexico and California, but no details are available. Permanganate has advanced to 17s. 6d. per lb.; cyanide of sodium is 2s. 6d. per lb., and borax 110s. per 100 lbs. Leaving out the decrease in the price of mercury, chemicals are firm, with a hardening tendency, but business is exceptionally slack, as outside enquiries are sluggish, and it must be remembered that the mines originally contracted direct after the war started and so our chemists do not often come along within the mining demands to any great extent. Medicated cotton wool is acutely scarce, and the price is quite 5s. per lb. and then only in retail lots. On the whole, the big

houses have well-assorted stocks of household chemicals and toilet requisites, and plenty more are arriving from America.

BRICKS, TIMBER AND BUILDING MATERIALS.

Only ten days ago there was every hope of the brick industry recovering itself by the end of this month, but unfortunately the disastrous rains this week have again flooded practically all the yards. Whilst the floods in question were on, they destroyed hundreds of thousands of green bricks which were about ready to be placed into the kilns to be burnt. Hence bricks are for the moment unobtainable, as the few on hand preserved under cover are all on urgent order. A small jobbing man had to repair a chimney and he had the utmost difficulty in obtaining a few, even then he had to take second-hand bricks, which at first the property owner refused but accepted them after the position was explained. A brick broker says that many of the yards have lost anything up to a thousand pounds and over, which is putting the matter mildly now the second flooding has happened. The nominal price for stock bricks delivered in town has advanced from 62s. 6d. per 1,000 to anything up to 70s.; in fact there are no forward bookings at the moment, as the threatening clouds are overhead at the time of writing. The position is serious, because the price of 70s. would be gladly paid if any bricks were available, but 70s. is about double the price of pre-war days.

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Timber is also creeping up as on the present basis of first cost, and with the cost of freight with insurances and incidentals added, deals cannot be landed in Johannesburg under 1s. 9d. per foot at least, and it is expected that this will be the price at the end of this month. Second-hand deals are 1s. 1d. per ft., flooring 7½d., and ceiling 4d. per square foot. Second-hand timber is not plentiful, but both corrugated and flat galvanised iron are rather on the abundant side as compared with a few months ago.

OILS, PAINTS, WHITE LEAD, ETC.

A leading oil and colour house is making quite a success in manufacturing boot blacking, furniture polish and kindred things. There were a number of initial difficulties especially in obtaining the requisite tins as well as some of the ingredients, particularly oil in sufficient quantities. From every appearance this is a manufacture that is likely to stand the outside competition after the war. Business is excellent in the demand for wallpapers as the rains damaged many walls, therefore the various residences require re-papering. The question of S.A. tar is an important one just now, owing to the absence of the imported article for the roads. A quotation of 1s. per gallon came from a South African town, and it incidentally mentioned that one of their tar tanks had been altogether submerged by the flood water. It appears that our tar is of a more greasy nature than the imported, but that would not matter for road-making. Plate glass is practically unobtainable, but consignments are expected to arrive in April, and bookings are taking place for then.

ELECTRICAL MATERIAL.

There has been a good advance in electrical wiring because stocks are coming forward very slowly indeed, and the demand keeps up very well as all the new residences are being wired as the erections progress. Carbon lamps are being used more freely and the price is now 18s. per dozen, also wirings, tubings and keyholders have advanced rather smartly, therefore a reference should be made to our standard list for the detailed prices. Business is quite good for those firms having a fair assortment of wiring and other materials.

THE LABOUR POSITION.

The S.A. Reduction Workers have, we are informed, received from the Chamber of Mines an intimation that the investigation into the wages and conditions of reduction workers is practically complete, and that the Chamber will be prepared to meet representatives of the workers at an early date. There are a large number of miners making application daily at the Government Labour Bureau, through being turned off the mines owing to the lack of native labour. It is said that it is very difficult to find other employment for them. The semi-clerical staff and the unskilled labour are in a poor way for finding work; however, hopes are entertained that a good few may be sent to the Hartebeestpoort Government Works when the seventy men employed there finish the special work upon which they are engaged. That may be perhaps about the end of this month. The railway people were employing unskilled labourers, but now, it is said, they are restricting that work to returned soldiers. There is a good demand for moulders and engineers for the many works in Johannesburg, also the building trade was a little better and cabinet-makers are badly wanted for the furniture trade.

REVISED PRICE LIST.

BUILDING MATERIALS.—Timber: Deals, Baltic, 9 x 3, 1s. 7d. to 1s. 8d.; flooring, 4½ x ¾, and 6 x ¾, 10d. per square foot; flooring, 4½ x 1½, 9½d.; and 6 x 1½, 9½d.; ceilings, 6 x ¾, 5½d. per square foot; pitch pine, 8s. 6d. per cubic foot; Oregon, 7s. to 8s. per cubic foot; clear pine, ½ in. x 12 in., 1s. 3d. per foot; 1in. x 12in., 1s. 6d.; teak, 17s. 6d. to 18s. 6d. cubic foot; shelving, 1s.; jarrah, 12s. 6d. cub. ft.; poplar, 1in. x 12in., 1s. 6d.; scantling, 1s. 6d. to 1s. 7d. ft.; beaver boards, 5½d.; galvanised iron, 24-gauge, 6ft. to 10ft., 1s. 9d.; 11ft., 1s. 10d.; 12ft., 2s.; 26-gauge, 6ft. to 8ft., 1/6, 1/7; 9ft. and 10ft., 1/8; flat galvanised, 24-gauge and 26-gauge, 100s. 100 lbs.; floor brads, 52s. 6d.; ceiling, 47s. 6d.; wire nails, 47s. 6d. to 55s. per 100lb.; locks, rim, 66s.; mortice, 70s. per dozen; steel ceilings, 75s. to 80s.; roofing material, 1 ply, 40s.; 2 ply, 47s. 6d.; and 3 ply, 57s. 6d. per roll.

BRICKS, CEMENT, LIME, ETC.—Pretoria Portland Cement, 9s. 3d. bag; 8s. 3d. truck loads; lime, white, unslaked, 7s. 6d. per load, 6s. slaked, do., 5s.; blue, 3s. 9d.; plaster lime, 4s. 6d.; bricks, stock, delivered, 67s. 6d. to 70s. wire cuts, 70s. to 75s.; pressed 70s. to 80s. 1,000; road transport expensive when obtainable; salt glazed £15½ and white bricks, £35 per 1,000; roofing tiles, £17½ to £27½ per 1,000; glazed tiles, 17s. 6d. to 27s. 6d. per yard; paving cement tiles, 6d. per yard laid; reinforced concrete columns, 6ft. plain, 25s.; fluted, 30s.; fireclay bricks, £8½ to £14½ at kiln, per 1,000; clay chimney pots, 36s. to 70s., according to height, 12 in. to 18 in., per dozen.

OILS, PAINTS, LEAD, OXIDE, GLASS.—Linseed, raw and boiled, 14s. to 14s. 6d. per gall.; white lead, 1s. 3d. per lb. and 1s. 1d. in big lots; turpentine, 67s. 6d. 2½ 1.5 galls.; 10/1 5-6 imp. tin, 73s.; oxide in oil, 50s. per 100 lb.; dry oxide, 16s. to 16s. 6d.; linseed oil putty, 8d. per lb.; paints in tins, 1s. 3d. lb.; British plate glass, ¼in., 6s. to 6s. 6d.; do., mirror, 6s. 6d.; window, 16oz., 1s. to 1s. 6d. per foot; and fancy glass, 2s. per foot.

GREASE.—Imported, A.F. axle, £35; local, £24 to £26 per ton; tallow (local), 8d. per lb.; White Rose paraffin, 19s. 4d. 2/4 Laurel paraffin, 19s. 1d.; petrol, 35s. 6d. to 36s. 6d. 2/4 I.M.P.; motor oil, 7s. to 7s. 6d. per gallon; engine lubricating oils, 32s. 6d. to 40s. per case; cylinder, 32s. 6d. to 42s. 6d.

CHEMICALS.—Mercury, £10 75lb.; bichromate potash, 5s. 6d. lb.; chlorate, 4s. 6d. per lb.; permanganate, 17s. 6d. lb.; alum, 6d. lb.; carbolic acid, 7s. 6d. lb.; borax, 110s. 100 lbs.; vanide sodium, 2s. 3d. to 2s. 6d. lb.; hypo, 9d. lb.; acetate lead, 77s. 6d. 100 lbs.; litharge (assay), 70s. to 72s. 6d. (commercial), 58s. 6d. 100 lbs.; zinc sheets and blocks, 1s. 9d. lb.; locally-smelted zinc, 6½d. lb.; plumbago crucibles, 5d. per number.

ELECTRICAL GOODS.—Lamps, high volts, British, Holland and American, 30s. to 36s. wholesale, and 48s. to 54s. doz. retail; carbon lamps, 18s. dozen; pure rubber flex, 6d. to 8d. yd.; 3 20 coils wire, 42s. 6d. to 45s.; ditto, 3/22, 27s. 6d.; 7/22, 60s.; 7/20, 80s.; 7/18, 105s.; tubing, 23s. to 25s. per 100 feet; keyholders, 4s. 6d. to 5s. 6d. each; round blocks, 3½in., 5s. 6d. to 6s. dozen; lamp holder cord grips, 13s. 6d. to 15s. per dozen; switches, 5 amp., 42s. to 48s. per dozen; British glass shades, 30s. to 40s. dozen; porcelain shackles, 15s. to 18s. dozen; do., bobbins, 15s. to 25s. per 100; cleats, 22s. per 100; P.O. insulators, 18s.; motor, 3 h.p., about £35 to £37, new.

IRON.—Imported, ½in. and ¾in. round, 9d. to 10d. lb.; ½in. round, 67 to 70s. 100lb.; ¾in., 66s.; ¾in. round, 47s. 6d. to 50s. 100lb.; 1in. up, round, 35s. to 40s. per 100lb.; square iron, 35s. per 100lb.; flat iron, small shoeing sizes, 45s. to 50s.; flat, average width and thickness, 36s. to 40s.; round iron, local, ¾in. upwards, 33s. 6d. per 100lb.; square iron, local, ¾in. upwards, 33s. 6d. per 100lb.; flat iron, average widths and thickness, 33s. 6d.; mild steel bar, 6½d. to 9d. per lb.; drill, 10d. to 1s. per lb.; steel plates, 70s. to 80s.; many sizes unobtainable; hexagon and cuphead bolts, ½in. diameter, 2s. per lb.; 5-16in. diameter, 1s. 9d. per lb.; ¾in. diameter up to 3in. long, 1s. 9d. lb.; ¾in. dia., 1s. 6d., 3½in. and up long 1s. 6d. lb.; ½in. dia. up to 2½in. long, 77s. 6d. 100lb.; ½in. dia. and 2½in. up long, 75s. per 100lb.; ¾in. diameter up to 2½in. long, 75s. per 100lb.; ¾in. dia. 2½in. and up long, 57s. 6d. per 100lb.; ¾in. diameter, 2½in. and up long, 55s. 100 lb.; ¾in. and 1in. diameter, same price as ¾in. diameter; nuts, ¾in., 1s. 3d. per lb.; ¾in., 82s. 6d.; ¾in. to 1½in., 75s.; 1½in. and 1½in., 85s.; 1½in. to 1½in., 87s. 6d.; 2in. up, 92s. 6d.; washers, all sizes, 59s.; rivets, 3-16in., 1s. 6d. lb.; ½in., 5-16in., 1s. 6d. lb.; 7-16in., ¾in., 1s. 3d. lb.; ½in., 75s.; ¾in., 65s.; ¾in. up, 60s. 100 lb.; shoes and dies, 32s. 6d. to 35s., 100lb.; rails, £25 per ton; picks, 4lb., 40s. per doz.; shovels, 65s. to 70s. per doz.; drill hammers, 5½d. to 6d. per lb.; hammer handles (best American), 14in., 4s. 6d.; 24in., 10s.; 30in., 14s.; 36in., 16s. 6d. per dozen; metal, anti-friction knoxite, 11d. to 4s. and special prices per lb.

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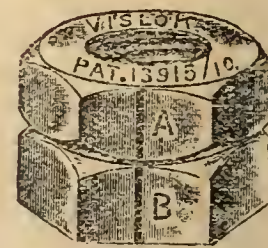
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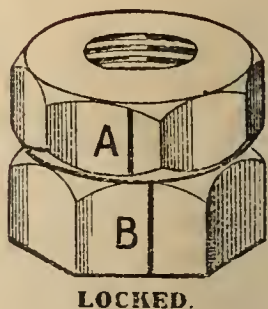
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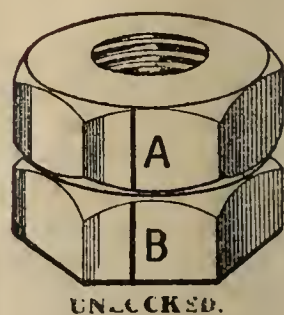
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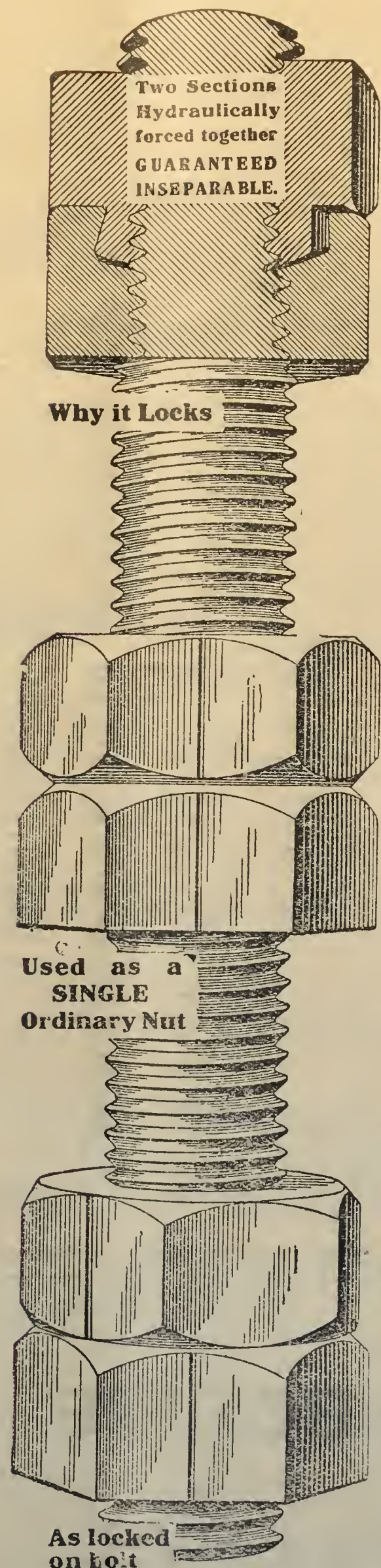
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Company Meetings.

PHOENIX GOLD MINES, LTD.

The annual general meeting of shareholders of the Phoenix Gold Mines, Ltd., was held at 10 o'clock on February 16, at the offices of the company, Bettelheim Buildings, Mr. J. Andrew Cohen presided, and there were also present Messrs. S. Alexander, E. M. Hind, G. B. Pascoe, W. Just, and E. B. Dowling (secretary), representing 179,200 shares out of an issue of 700,000.

The Chairman, in moving the adoption of the report and accounts, said:—Before proceeding to discuss the report and balance sheet presented to you to-day, I would like to state that the absence of your chairman is due to his being in Capetown attending to Parliamentary duties. I should also like to refer to the loss the company has sustained owing to the death of Mr. J. H. Ryan. The late Mr. Ryan had been on the directorate of the company for a number of years and, having a most intimate knowledge of all its affairs, he displayed the keenest interest possible in the company's welfare. I am sure you will all join in passing an expression of deep sympathy with the widow and family of the deceased gentleman in their great loss. Turn to the balance sheet you will note that the capital of the company is unaltered. On the credit side of the balance sheet cash on loan and at the bank shows an improvement of £655 and at the close of last year stood at £29,209. The revenue for the year more than covered the expenditure, the surplus being £576 odd. The company's property remains unchanged and is being dealt with to the best advantage in the circumstances obtaining. The farm Witpoortje is let under the same arrangement as reported at the last meeting of shareholders and it is to be regretted that owing to an unfavourable season the revenue accruing to the company therefrom was not up to expectations. The Waterberg farm, Rietfontein, produced a small amount in the shape of rents from squatters, but the Board is endeavouring to improve the return by leasing the agricultural and grazing rights over the farm, and the matter is in the hands of the company's agent with a view to securing a suitable tenant. There is no change to report in regard to the company's mining interests on the East Rand, and the position is such that your directors have been constrained to continue the policy enunciated in previous years of carefully watching the trend of events on the far East Rand and collating all the data available which may have a bearing on the company's claims. Meantime, the cash resources are being conserved, and the major portion is on loan at short call. I now beg to move the adoption of the directors' reports and accounts as at the 31st December, 1917.

The report and accounts were adopted.

The appointment of Mr. E. M. Hind as a director in place of the late Mr. J. H. Ryan was confirmed.

Messrs. H. Graumann, M.L.A., and J. Andrew Cohen, retiring directors, were re-elected. Messrs. F. W. Diamond and English were re-appointed auditors.

PRINCESS ESTATES.

An extraordinary general meeting of shareholders in the Princess Estate and Gold Mining Company, Ltd., was held on Feb. 12 at the offices, 94, Main Street, for the purpose of considering certain resolutions relative to the capital of the company.

Mr. H. Newhouse presided, and among those present were Messrs. V. J. Ronketti, W. R. Crowhurst, F. C. Meeser, G. Som, T. G. Suter, W. Anstey, R. des Clayes, and J. Jeppe, with the secretary (Mr. R. W. C. Hawthorn). Of 575,033 shares, 202,304 were represented.

The chairman said:—The circular which has been in your hands for more than two months has so fully explained the business for which you are called together to-day that I think there is no need for me to take up your time with more than a brief reiteration of its contents and a review of what has been accomplished to date in connection with the work recommended by your consulting engineer. As you are aware, this work consists of cutting out the portion of the central deep shaft known as "the bend" and improving the hoisting and other equipment, coupled with the sinking of this shaft from the 13th to the 15th level, while it has for its objects a substantial reduction in working costs and, provided development of the main and south reefs justifies expectations, a considerable prolongation of the life of the mine through the removal of the long-standing shaft maintenance difficulties and the causes which have latterly prevented development at depth. In recommending this work to your board, your consulting engineer pointed out that, in order to avoid a temporary suspension of milling operations in the near future, it was essential that it should be taken in hand without delay and, as legal requirements would cause some three to four months to elapse before the necessary capital could be provided through a share issue, your directors made it a condition of the provisional agreement entered into with Messrs. A. Goerz and Co., Ltd. (and referred to later) that this firm should lend your company the funds required during this period, up to a maximum of £50,000. This made it possible for a commencement to be made forthwith and the programme has, so far, proceeded normally—except in one respect. The excessive rainfall of the past two or three months caused an abnormal influx of water in the mine, and, unfortunately, this influx coincided with a temporary breakdown of some of the pumps, the result being that the incline shaft was flooded to just above the 13th level, and that portion of the work was in consequence interrupted. To safeguard against a recurrence of these troubles, additional pumping facilities have been provided and a dam has been constructed to permanently deal with a fissure from which a considerable quantity of water enters the workings. The de-watering of this shaft was expected to be completed in a few days, but the torrential storm which visited the district last Thursday has caused a further influx of water through the swamping of the pumps which normally handle the surface drainage

water. The delay, therefore, before sinking can be resumed is likely to be somewhat longer than was anticipated a few days ago, but the position is now well under control, and should no further serious rains occur it is hoped that there will be no delay in the task of de-watering.

Satisfactory Values.

You were informed in the circular that the south reef tributary to this shaft has been consistently payable, and was so at the present lowest level (the 13th), where it had been driven on for 3,200 feet. Since then the blocking out of the south reef on the 13th level has been completed. Development has continued in the main reef chutes, and in the three months ended 31st January, 1918, 575 feet have been sampled, giving a value of 91dwt. over the channel width of 40ins. The indications to which I referred at the annual meeting last year, namely, that a greater proportion of the main reef would prove available than had been previously expected, and the existence of satisfactory values in the south reef at the lowest level, have, therefore, received further confirmation. The recalculation of the ore reserves at the end of last year gives a south reef tonnage of 298,000, assaying 7.1dwt. over 23ins. milling width, while on the main reef there were developed 205,000 tons, also assaying 7.1dwt., but over a milling width of 52ins., making a total of 503,000 tons assaying 7.1dwt. over 34.6 milling width. This shows an increase in the tonnage developed of 27,000 tons, the value being unaltered but the width being 4.2ins. better. It is of interest to note that the south reef tonnage developed has decreased 47,000 tons while the main reef tonnage increased 71,000 tons. In addition, there is the tonnage left to protect shafts, which is unaltered in quantity. To provide the capital necessary to carry out this reorganisation, your directors recommend to you the reduction of the capital of the company from £575,033 in £1 shares to £57,503 6s. in 2s. shares, to be effected by writing off 12s. per share, and its subsequent increase by £50,000 to £107,503 6s. through the creation of 500,000 new shares of 2s. each.

The New Shares.

Messrs. A. Goerz and Co., Ltd. have undertaken to subscribe and pay in cash for the whole of these new shares immediately after the scheme has received the sanction of shareholders and the reduction of capital has been confirmed by the Court and registered, and they have further undertaken to place at the disposal of your company a sufficient number of such shares to enable it to offer to shareholders resident in South Africa the opportunity of purchasing these shares at the same price in the proportion of one new for one old share. Messrs. A. Goerz and Co., Ltd., also undertake, provided the consent of H.M. Imperial Treasury to such procedure is obtained within three months of the date upon which they subscribe for these new shares, to place at the disposal of the company a further number to enable it to offer the same rights to shareholders resident in the United Kingdom. Application has already been made to the new Issues Committee of H.M. Treasury for its consent. Pending the acceptance of this

scheme, Messrs. A. Goerz and Co., Ltd., are, as already stated, lending the company the money necessary to carry on the work. Under this arrangement, Messrs. A. Goerz and Co., Ltd., have, so far, advanced £14,766.

Your directors hope that the funds to be provided under the scheme now under consideration will be sufficient for the completion in full of the programme of work, in spite of the unforeseen expenditure due to the water influx. If the scheme receives the approval of shareholders, the company should be free of debt when crushing to the full capacity of the mill can be resumed, which it is anticipated will be in the third quarter of this year, and the profits subsequently earned should, as far as can be foreseen to-day, be available for dividends (subject to the requirements for incline shaft-sinking).

The Resolutions.

I now beg to move as special resolutions:—(a) That the first portion of article 48 of the articles of association from the words "the company" in line one inclusive, down to and including the words "notwithstanding this provision" in line five, be and it hereby is expunged, and that the word "also" in line six of the said article be and it hereby is expunged. (This alteration is merely formal and necessitated by the proposed change of capital). (b) That the existing nominal and issued capital of the company be reduced from £575,033

(five hundred and seventy-five thousand and thirty-three pounds) in 575,033 (five hundred and seventy-five thousand and thirty-three) shares of the nominal value of £1 each, all issued as fully paid up, to £57,503 6s. (Fifty seven thousand five hundred and three pounds six shillings), divided into 575,033 shares of the nominal value of two shillings (2s.) each, all fully paid, and that such reduction be effected by writing off paid-up capital to the extent of eighteen shillings (18s.) per share, upon each of the 575,033 shares which have been issued and are now outstanding and by reducing the nominal value of all the shares in the company's capital from £1 to 2s.; and that the chairman of the company for the time being be and he is hereby authorised and directed to apply to a competent court for the confirmation of the said reduction. (c) That the directors of the company be and they hereby are authorised and instructed to increase the reduced capital of the company of £57,503 6s. to £107,503 6s. by the creation of 500,000 new shares of two shillings (2s.) each forthwith after the said reduction shall have been confirmed by the Court and shall have been duly registered, but not otherwise, and to allot and issue the said 500,000 shares at the price of 2s. per share to Messrs. A. Goerz and Co., Ltd., and or their nominees appointed by the said A. Goerz and Co., Ltd., in writing and/or their assigns in such numbers as may be notified on subscription, such

shares to be taken up and paid for in Johannesburg and/or in London at the option of the said A. Goerz and Co., Ltd.

Mr. Anstey asked if any attempt had been made to raise the money in another way.

The Chairman said that the procedure adopted seemed to him to be the most satisfactory from the shareholders' point of view, for if they raised a loan the lenders would naturally require preference, whereas Goerz and Co. were coming in on exactly the same basis as the rest of the shareholders. They were paying for the shares at par, with no further rights, and shareholders in South Africa would have the right to accept such shares at the same price, as would the United Kingdom shareholders, subject to the agreement of the Imperial Treasury.

Mr. Des Clayes, who seconded the resolutions, agreed with the view expressed by the chairman. He did not think any other scheme would be so favourable to shareholders.

The resolutions were carried unanimously.

In terms of the Companies Act, these resolutions require to be submitted for confirmation as special resolutions to another extraordinary general meeting of the company which will be held at the same time and place on the 13th of March and, if they are then confirmed, the reduction of capital will require to be confirmed by the Court and registered in terms of law before the subsequent increase can be effected.

New Patents.

- 608. John Lysaght, Ltd., and Walter Robert Palmer.—Improvements in and relating to skylights, side-lights, louvred ventilators and the like in corrugated or plain sheet metal.
- 609. Simon Lyon Goodman and Harry Isaac Celine.—Improvements in boots and shoes.
- 610. Cyril Surham James Dunning.—Improvements in aerials for use in wireless telegraph or telephone systems.
- 611. Percy Leonard Weston.—Improvements in magnetic belting.
- 612. Melvin Oscar Fraser.—Improvements in carburettors.
- 613. Lancelot Ussher and Armour Hall.—Improvements in cocks, valves and the like.
- 614. The Leeds Forge Co., Ltd.—Improvements in railway and like wagons.
- 615. John Stow and Harry Barton Cross.—Improvements in sliding doors for cases, cupboards, shopfitting entrances and the like.
- 616. The Dorr Company.—Classifiers.
- 617. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to sewing machines or to machines for operating upon veldschoen or like boots and shoes.
- 618. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to last pulling machines.
- 619. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to machines for shaping the heel ends of boots and shoes.
- 620. British United Shoe Machinery (S.A.), Ltd.—Improvements in or relating to sole pressing machines.

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Notice of Extraordinary General Meetings.

NOTICE IS HEREBY GIVEN that an EXTRAORDINARY GENERAL MEETING of the above Company will be held in the Board Room, Consolidated Building, Johannesburg, on WEDNESDAY, the 27th day of FEBRUARY, 1918, at 12 o'clock noon, for the purpose of considering and, if deemed fit, of passing, in the manner required for the passing of an Extraordinary Resolution, Resolutions to the following effect:—

1. Placing the Company in voluntary winding-up.
2. Appointing Liquidators, defining their powers and fixing their remuneration

AND NOTICE IS HEREBY GIVEN that a further General Meeting of the Company will be held at the same place, on FRIDAY, the 22nd day of MARCH, 1918, at 12 o'clock noon, for the purpose of receiving a report of the proceedings of the first above-mentioned Meeting, and of confirming as Special Resolutions all or any of the Resolutions passed thereat


The Share Registers of the Company will be closed from the 21st day of February to the 27th day of February, 1918, inclusive, and from the 16th day of March to the 22nd day of March, 1918, inclusive.

By Order of the Board,

JOHANNESBURG CONSOLIDATED INVESTMENT CO.,
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per FRANK HALL.

Head Office,
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18th December, 1917.

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